

# **2012 STATE OF HAWAII WATER QUALITY MONITORING AND ASSESSMENT REPORT:**

Integrated Report to the U.S. Environmental Protection Agency and the U.S. Congress  
Pursuant to §303(d) and §305(b), Clean Water Act (P.L.97-117)



The Hawaii Department of Health  
Honolulu, Hawaii  
August 2013

## EXECUTIVE SUMMARY

The Hawaii State Department of Health (HIDOH) is required by the Clean Water Act (CWA) §303(d) and §305(b) to report on the state's water quality on a two year cycle. The CWA §305(b) requires states to describe the overall status of water quality statewide and the extent to which water quality provides for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allows recreational activities in and on the water. The CWA §303(d) requires states to submit a list of waters that do not meet state water quality standards, plus a priority ranking of listed waters for Total Maximum Daily Loads (TMDL) development based on the severity of pollution and the uses of the waters.

The previous 2008/2010 Integrated Report was an abridged report due to delayed submission and personnel reorganization. Water quality assessments for this 2012 Integrated Report are thus built upon the assessments from the 2008/2010 Integrated Report. These new assessments were made from data collected between January 01, 2006 and October 31, 2011. Any data received after the data submission period will be incorporated in the next cycle, the 2014 Integrated Report.

HIDOH's 2012 Integrated Report contains a total of 225 marine segments and 88 stream segments for which decisions of non-attainment of state water quality standards reflect the waterbody status as impaired. Five marine waterbody segments are delisted, 26 new marine waterbody segments are listed for impairment, and no new inland waterbody segments are listed.

### **Marine Waters**

The 2012 Integrated Report contains a total of 225 impaired marine segments. The breakdown per island for the 225 impaired marine segments (and the percent listed waters per island/per total number listed waters) is: Kauai 23 (10%), Oahu 73 (32%), Molokai 3 (1%), Lanai 7 (3%), Maui 76 (34%), and Hawaii 43 (19%).

There are five waterbodies that are delisted, four of which are delisted for enterococci:

#### Kauai

Lydgate Park (HI798758)

Wailua (Wailua River Station) (HI606168)

#### Lanai

Manele Bay Beach (HIW00178)

#### Maui

Ukumehame Beach County Park (HI814309)

#### Hawaii

Kamakaokahonu (HIW00032)

There are also 26 new marine waterbodies listed as impaired for one or more pollutants:

#### Kauai

Lumaha'i Beach (HI889639)

Waimea Rec Pier State Park (HI245235)

## Oahu

- Ewa (open coastal) (HIW00189)
- Ka'alawai Beach (HI253930)
- Kapoho Point (HIW00192)
- Keehi Lagoon (HIW00009)
- Kuli'ou'ou (HI360513)
- Laenani Beach County Park (HI930562)
- Punaluu Beach Park (HI148836)
- Sandy Beach (open coastal) (HIW00191)

## Maui

- Honolua Bay (HI280286)
- Kahului Bay (HIW00195)
- Kalama Beach County Park (Cove Park) (HI705118)
- Maliko Bay (HI423064)
- Napili Bay (HI764060)

## Hawaii

- Banyan's Surfing Area (HI713314)
- Kapoho Bay (HI391407)
- Kaui Point-Kapaa Beach Park (HIW00201)
- Kaui Point-Kapaa Beach Park (oceanic) (HIW00202)
- Keahole Point (HIW00203)
- Mahukona Harbor (HIW00197)
- Mahukona Harbor (oceanic) (HIW00198)
- Makaohale Point-Kaui Point (HIW00199)
- Makaohale Point-Kaui Point (oceanic) (HIW00200)
- Pelekane Bay (HI738158)
- Waiulaula (HI934020)

Of the marine waterbodies previously listed in the 2008/2010 Integrated Report, 17 waterbodies are now listed for one or more new pollutants, for a total of 103 newly listed pollutants. Conversely, one or more pollutants are now delisted from 19 previously listed waterbodies, resulting in the delisting of a total of 21 pollutants.

Of the 225 listed marine segments, 38 are due to high enterococci indicator bacteria test results. Hawaii's bacteria water quality criteria for enterococci is set at a geometric mean of 35 colony forming units (CFU)/100 mL and a single sample maximum limit of 104 CFU/100 mL. Hawaii also uses a secondary tracer, *Clostridium perfringens*, as an additional investigative tool to help confirm high bacterial indicator counts.

Turbidity is the most common pollutant to trigger a marine water listing for impairment, with 150 occurrences in the 2012 Integrated Report. The HDOH believes these are due to polluted runoff and is focusing its polluted runoff control program on selected watersheds to make measurable improvements.

**Inland Waters**

The 2012 Integrated Report contains a total of 88 impaired stream segments. Within the 88 listed inland freshwater perennial stream segments, there are a total of 239 individual occurrences of pollutants which did not meet the state water quality criteria. The most common listing was Turbidity with 92 instances of exceedance. The next most common listings were Nitrate + Nitrite Nitrogen, Total Nitrogen, and Total Phosphorus with 62, 53, and 31 instances of exceedance, respectively. No new data since the 2006 cycle were received and therefore none reviewed for the freshwater portion of the 2012 Integrated Report.

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## INTRODUCTION

The 2012 Integrated Report is intended to satisfy the requirements for State reporting pursuant to Sections §303(d) and §305(b), Clean Water Act (P.L. 97-117). The CWA requires states to provide an assessment every two years of the quality of all their waters (§305(b)) and a list of those waters that are impaired or threatened (§303(d)).

The 305(b) report is "[the] **National Water Quality Inventory Report to Congress**... primary vehicle for informing Congress and the public about general water quality conditions in the United States. This document characterizes our water quality, identifies widespread water quality problems of national significance, and describes various programs implemented to restore and protect our waters."<sup>1</sup> The U.S. Environmental Protection Agency (EPA) recommends that states sort their surface waters into five categories according to the following guidance:

- Category 1:** All designated uses are supported, no use is threatened;
- Category 2:** Available data and/or information indicate that some, but not all of the designated uses are supported;
- Category 3:** There is insufficient available data and/or information to make a use support determination;
- Category 4:** Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed;
  - 4a.** A TMDL to address a specific segment/pollutant combination has been approved or established by EPA;
  - 4b.** A use impairment caused by a pollutant is being addressed by the state through other pollution control requirements;
  - 4c.** A use is impaired, but the impairment is not caused by a pollutant;
- Category 5:** Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed.

Waterbodies classified in Category 5 constitute the CWA §303(d) List of Impaired Waters. The 2012 Integrated Report identifies waterbodies that are not expected to meet state water quality standards, even after application of technology-based effluent limitations. States are required to obtain and review all existing and readily available surface water quality data and related information to compare against the state's water quality standards, and after applying listing criteria, determine the level of impairment for that waterbody. The list requirements apply to waterbodies impaired by point and/or non-point sources of pollution and include a requirement for listing of those pollutants for which applicable water quality standards are exceeded.

The 2012 Integrated Report, which includes a priority ranking of listed waters based on the severity of pollution and the uses of the waters, will be submitted to EPA immediately upon completion. Computation of TMDLs for all §303(d)-listed pollutant/waterbody combinations, prepared in accordance with the priority rankings, must follow with EPA approval of each State's List. TMDLs for all listed pollutant/waterbody combinations are prepared in accordance with the priority rankings and the State-EPA schedule for submission for TMDLs. The time frame for

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<sup>1</sup> EPA Monitoring and Assessing Water Quality (n.d.). Retrieved September 27 2006, from <http://water.epa.gov/lawsregs/guidance/cwa/305b/index.cfm>

establishing TMDLs should be 8 to 13 years from the date of the original listing. This schedule is negotiated on a continuing basis and is influenced by federal funding, State policy, data availability and a host of other factors, which vary from year to year.

Decisions to list, delist, or not list a waterbody for which data exist and have been reviewed must be documented (40 CFR §130.7). The periodic listing process allows HDOH to list waterbodies, which after recent sampling, show exceedance; delist waterbodies (from the 303(d) section), which do not, after further sampling show exceedance for listed parameters; and more clearly articulate the parameters for which previously listed waterbodies should be listed. Additional information is also provided regarding attainment of known pollutants, pursuant to the 305(b) portion of the guidance.

Hawaii's 2008/2010 Integrated Report, plus data collected from January 2006 to October 2011, constitutes the body of information reviewed for the 2012 Integrated Report. Changes to the marine listings are described in Chapter 1. Although there are no changes from the 2006 List of Impaired Waters for stream segments, Chapter 2 of this report provides a description of the inland water assessments. The full table of Waterbody Assessment Decisions is presented in Chapter 3.



# **Chapter 1**

## **Marine Waters**

## **PART A. SCOPE OF WATERS**

This chapter of the 2012 Integrated Report covers all waters of salinity more than 0.5 parts per thousand. Assessment units for the 2012 Integrated Report remain the same as the assessment units applied in previous reports. Waterbodies are partitioned according to Hawaii Administrative Rules (HAR) §11-54 by type, and then listings are renewed accordingly. Refer to methodology section in Part B.2. for details regarding decision units for attainment decisions.

## **PART B. MONITORING AND ASSESSMENT**

### **B.1. Monitoring Program**

This section of the 2012 Integrated Report discusses HDOH's monitoring program for marine waters. The entire monitoring program is examined from strategies and procedures to data assessment.

#### **B.1.1. Monitoring Strategy Overview**

Two main types of surface water monitoring data are used in this report: bacteriological and chemical. Bacteriological monitoring of the shoreline areas is conducted under the auspices of the HDOH Clean Water Branch (CWB) Beach Monitoring program and the guidance of HDOH's Beach Monitoring Quality Assurance Project Plan (QAPP). CWB coastal chemistry sampling was limited to shoreline areas for the period reviewed in this report.

EPA's STORET database is the repository of data and information collected by HDOH. Waterbody assessments utilize the most current data and information from these systems. For the 2012 Integrated Report, HDOH retrieved data from STORET for the period starting in January 2006 and ending in October 2011. The end-users of the STORET database system include not only government agencies, but also consultants, students, and the general public.

Assisted monitoring programs contribute invaluable service not only to communities but to government as well. In Hawaii, an example of data generated by monitoring groups is the HDOH's monitoring program partnership with the Hanalei Watershed Hui and Surfrider organizations.

Collaboration between HDOH and other state and federal agencies, including private consulting firms, is another key component of the monitoring program. CWA §401 and §402 permits stipulate water quality monitoring requirements applied to permit holders. Monitoring conducted by permittees provides a source of data from which the State's monitoring program also benefits. Water quality data generated by permittees results in greater statewide coverage and comprehensive assessments at no increased cost to the HDOH program. The coordination between multiple agencies and permit applicants also provides for expediting the permitting process through early plan reviews and dialogues in preconstruction meetings.

#### **B.1.2. Microbiological Sampling**

The CWB microbiological sampling program focuses mainly on shoreline waters throughout the state for the purpose of assuring the safety of swimmers, surfers, divers, and other recreational

users of near shore waters. This program serves two purposes. First, it identifies those areas where there is a potential for health related risks associated with the recreational use of shoreline waters. Second, monitoring provides an ongoing baseline from which to establish trends in the future and from which to determine if additional sample results show unusual or abnormal levels of indicator bacteria (i.e., indicating possible contamination, such as a sewage leak).

Water samples are analyzed for enterococci, the recommended EPA indicator bacteria for marine recreational waters. EPA has allowed Hawaii to use *Clostridium perfringens*, in conjunction with enterococci, as a secondary tracer to help confirm high bacterial indicator counts.

For the period between January 2006 and October 2011, the CWB bacteriological monitoring program collected samples at approximately 313 stations throughout the state (Kauai, 54 stations; Oahu, 123; Maui, 67; and Hawaii, 69). The approximate 313 stations are among the 388 beach stations established throughout the state, most of which are sampled on a rotational basis. The sites are monitored on a twice-weekly (core sites) or bi-weekly (rotational sites) basis.

#### **B.1.3. Chemical Sampling**

The CWB periodically collects shoreline chemistry samples for nutrient analysis, in support of the CWB's Polluted Runoff Control Program. The chemistry parameters analyzed include Nitrate+Nitrite Nitrogen, Ammonia Nitrogen, Total Nitrogen, Total Phosphorus, and Chlorophyll-a.

#### **B.1.4. Laboratory Analytical Support**

The HDOH employed the use of three Hawaii-based laboratories for analysis of samples: the State DOH Laboratory, Natural Energy Laboratory of Hawaii (NELH), and Microbiology Consulting Services, LLC (MCS). The Environmental Health Analytical Services Branch (EHASB) of the State Laboratories Division is responsible for the analysis of the samples collected by HDOH personnel. The two basic types of samples, microbiological and chemical, are each handled by separate sections within EHASB. Microbiological samples for West Hawaii (Kona) were handled by NELH until 2007. MCS began microbiological sampling analysis for West Hawaii in July 2007. The State maintains microbiology laboratories on each of the four largest islands (Kauai, Oahu, Maui, and Hawaii) which conducts the analysis for their respective islands. Only the Oahu laboratory is currently capable of conducting chemical analyses. Samples from the other islands are air-shipped to the Oahu laboratory for chemical analysis.

#### **B.1.5. Quality Assurance/Quality Control**

The monitoring program quality assurance/quality control (QA/QC) is governed by the CWB Beach Monitoring Quality Assurance Project Plan (QAPP) and the Coastal Chemistry Monitoring Quality Assurance Project Plan.

#### **B.1.6. Data Storage, Management, and Sharing**

The main repository for monitoring data is EPA's STORage and RETrieval (STORET) system. All post 1999 sampling data obtained from the CWB's fixed network of routine monitoring stations are first compiled into a CWB Access database, then entered into EPA's STORET system. Data prior to 1999 are stored in the "Legacy STORET Database". As of 2007,

monitoring data are transferred into STORET via the Water Quality Exchange (WQX) system. The data are then uploaded to EPA's main database which can be accessed via the internet. Future plans include development of a SQL based data management interface, and the use of the Exchange Network for data transfer ([www.exchangenetwork.net](http://www.exchangenetwork.net)).

Permittee effluent monitoring also generates a significant amount of sampling data. However, the data are only on hard copy, not in electronic form. Although the data are accessible, they must be gathered and then compiled by hand before analysis is performed. Permittee Zone-of-Mixing (ZOM) data was manually collected and assessed for use in this report.

## **B.2. Assessment Methodology**

### **B.2.1. Data Sources**

A formal call for marine data was made, ending in November 2011. Any data received after the submission deadline will be incorporated in the next cycle, the 2014 Report. The list below details the major sources used in the 2012 Integrated Report.

#### **CLEAN WATER BRANCH (CWB)**

With continued funding from EPA's Beaches Environmental Assessment and Coastal Health (BEACH) program, the existing bacteriological shoreline program was able to greatly increase both the number of sites and samples taken. The microbiological dataset extends from 1973 to present. Data from the previous six years (January 2006 through October 2011) were assessed for this report. The CWB Monitoring Section provided a bacteriological dataset of 32,460 samples from the four main Hawaiian Islands. The data were collected following the CWB Beach Monitoring QAPP and are routinely checked by the QA/QC officer.

#### **ENVIRONMENTAL ASSESSMENT COMPANY (EAC)**

EAC is a private research company headed by Richard Brock, PhD. An extensive dataset was provided by Dr. Brock for the south-southeastern coast of Lanai, and the Kona (western) coast of Hawaii. All data was produced following a prepared methodology, complying with the "West Hawaii Coastal Monitoring Program Monitoring Protocol Guidelines" (May 1992). Laboratory analysis followed Standard Methods (1999).

#### **MARINE RESEARCH CONSULTANTS (MRC)**

MRC is a private research company headed by Steve Dollar, PhD. The ongoing research was prepared for the Makena Resort Corporation to characterize coastal water quality (specifically targeting parameters set forth in HAR §11-54), in Makena, Maui. An extensive dataset was provided, following prepared sampling methodology and documented analysis methodology (Strickland and Parsons 1968, Grasshoff 1983), and utilizing EPA rated laboratories (Marine Analytical Specialists).

#### **HANALEI WATERSHED HUI**

In 2005, the CWB began a cooperative bacteriological sampling program with the Hanalei Watershed Hui, in which the Hui collects samples at several of the northern Kauai stations. Data are collected according to the CWB BEACH Monitoring QAPP.

## CITY AND COUNTY OF HONOLULU (CCH)

The CCH collects shoreline, nearshore, and offshore bacterial and chemical samples as part of their permit requirements for their four Waste Water Treatment Plant (WWTP) permits. The four WWTPs are located in the areas of Waianae, Honouliuli, Sand Island, and Kailua (Mokapu).

### **B.2.2. Assessment Methodology**

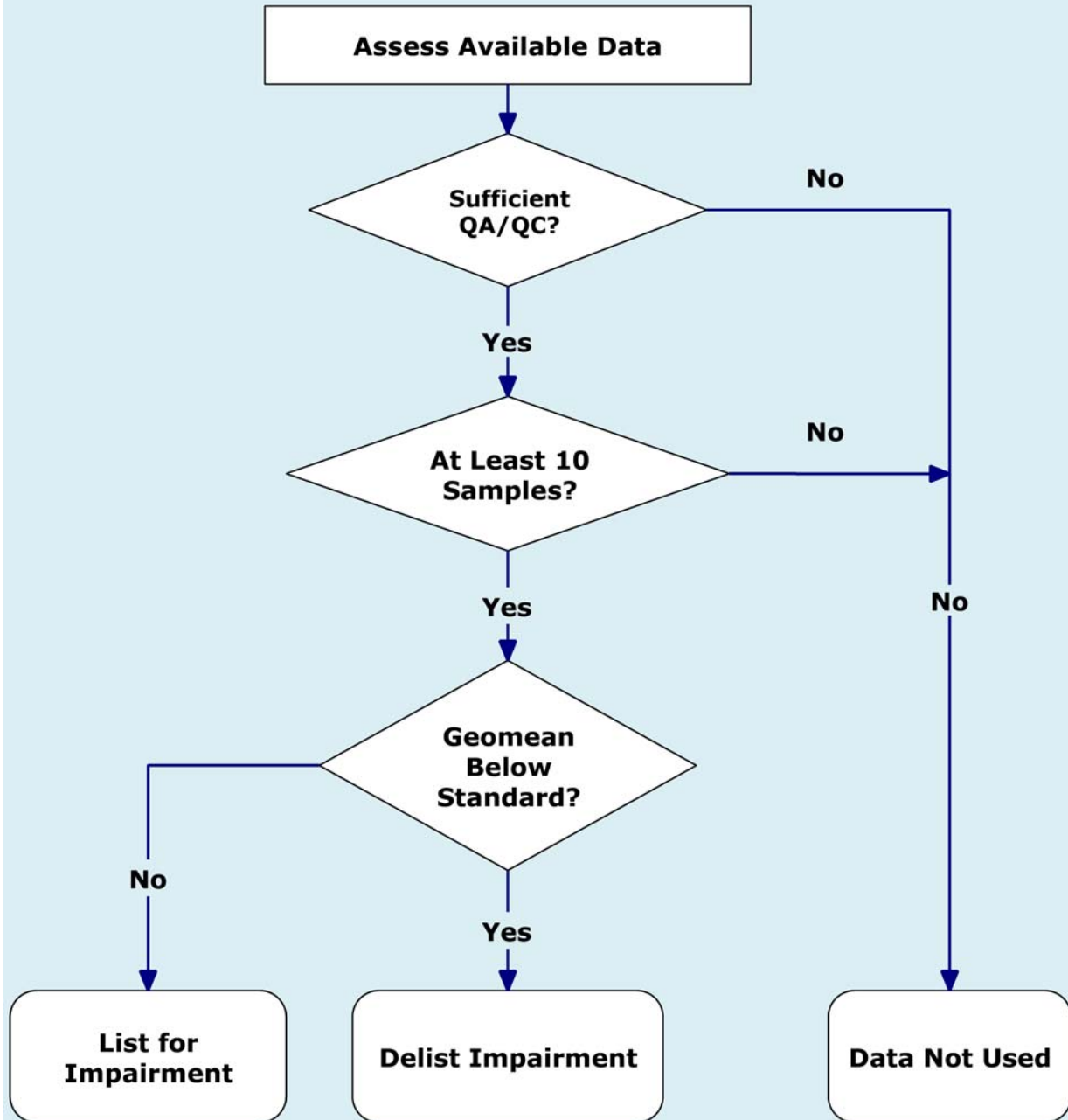
Data from marine waters monitored between January 2006 and October 2011 were assessed for this report. The assessments performed by CWB staff for this document follow the EPA's Guidance for 2006 Assessment, Listing and Reporting document (EPA 2005) to the maximum extent practicable. The flow chart in Figure 1 shows the basic process used for listing/delisting conventional pollutants. Enterococci data was given a 10% allowable exceedence, in which the waterbody was not listed as impaired if the geometric mean exceeded state standards 10% or less of the time for the entire data set.

For this cycle, the multi-categorization method as proposed by EPA has been retained, yielding a better categorical description for each waterbody. Please refer back to the Introduction section for the list and description of the categories. Table 4 documents changes made between the 2008/2010 and the 2012 reports, and the justifications for doing so.

Visual assessments were not used for the 2012 Integrated Report. Unlike previous cycles prior to the 2006 Integrated Report, visual assessment data was not available for the 2012 cycle. Listings from previous cycles based on legacy visual assessments have been carried over to the present listing. An example is the carry-over of the 2004 nutrient and turbidity listing for the geographic scope of "Kahului Bay inshore of breakwater". In future cycles, it is possible that these data will be revisited and/or reassessed.

# **FIGURE 1: Flow Chart of Listing/Delisting Process for Conventional Pollutants**

(enterococci, TN, NO<sub>3</sub>+NO<sub>2</sub>, TP, turbidity, chl-a, NH<sub>4</sub>, others)



### **B.2.3. Hawaii Water Quality Standards**

The HAR §11-54 defines the State standards for particular parameters for Hawaii waters, and is defined by both narrative and numerical criteria. HAR §11-54-1.1 defines a general policy of water quality anti-degradation for all water types and is as follows:

- (a) Existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.
- (b) Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the director finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the state's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation on lower water quality, the director shall assure water quality adequate to protect existing uses fully. Further, the director shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.
- (c) Where existing high quality waters constitute an outstanding resource, such as waters of national and state parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

HAR §11-54-3(c) defines classifications for marine waters. Marine waterbodies are separated by type into three main waterbody categories: embayment, open coastal, and oceanic. The classification uses a tiered system, defining two Classes, "AA" and "A". Class AA waters are described as: "It is the objective of class AA waters that these waters remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from any human-caused source or actions. To the extent practicable, the wilderness character of these areas shall be protected." Zones of mixing are not permitted within certain Class AA waters (HAR §11-54-3(c)(1)). Class A waters are describes as: "It is the objective of class A waters that their use for recreational purposes and aesthetic enjoyment be protected. Any other use shall be permitted as long as it is compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters." New sewage discharges or industrial discharges are not permitted within Class A embayments, with the exception of three industrial discharge types identified in HAR §11-54-3(c)(2).

The embayment and open coastal categories are further refined by inclusion of a wet or dry criterion, typically defined by levels of freshwater input (HAR §11-54-6(a)(3) and HAR §11-54-6(b)(3)). These criteria were revised in the 2006 Report using maps of "Wet and Dry Marine Waters" provided in State 208 Plans and county Water Management Plans. Delineations of embayments and their mouth openings made for the 2006 Report using best professional judgment remain the same. Two special area categories, Pearl Harbor and Kona (west Hawaii), are defined for marine waters, and establish specific standards for their respective water type.

Available assessment data were compiled using the defined methodology (geometric mean) and compared to each applicable standard. Each waterbody was categorized according to

comparison with each particular standard. A more detailed description of the standards can be accessed at the following website: <http://gen.doh.hawaii.gov/sites/har/AdmRules1/11-54.pdf>.

HIDOH's microbiological sampling utilizes enterococci bacteria density measurements as an indicator of human fecal contamination. However, using this bacterial indicator for the State standard has been found to be problematic in Hawaii and other BEACH programs across the country. Several studies have shown that enterococci may not be a reliable indicator in tropical locations such as Hawaii because it can multiply outside of the human body, and is also found in fecal matter of various wildlife, such as feral pigs.<sup>2</sup> Additionally, a 2005 study at Mission Bay, San Diego, California focused upon tracking causes of bacterial contamination, and found that "...fecal coliform and *Enterococcus* bacteria can survive for prolonged periods of time in coastal storm drains..." and that "...the majority of the indicator bacteria in Mission Bay originates from birds and that the initial load generated from avian sources can then be amplified by irrigation runoff, storm drains, intertidal sediments, and the wrack line" (Gruber et al., 2005).<sup>3</sup>

*Clostridium perfringens* has validity as an effective tracer of fecal contamination and is a viable option as an additional tool for monitoring water quality. A report produced by the Experts Scientific Workshop on Critical Research Needs for the Development of New or Revised Recreational Water Quality Criteria attempted to address the applicability of several potential bacterial indicators. The report acknowledges that "The presence of *C. perfringens* (spores) in water, therefore provides evidence of existing human/urban fecal contamination...", and adds that "although methods have been available for some time, confirmation of a robust and consistent method approach should be developed".<sup>4</sup> As shown, both organisms have limitations in applicability. Usage of a single organism for water quality characterization, therefore, is not desirable. To improve the accuracy of Hawaii's water quality monitoring, a two-organism approach is applied, using *C. perfringens* as a companion tracer alongside enterococci.

Although the HAR does not specify the use of *C. perfringens* as a companion indicator for enterococci, as noted earlier, it is allowable by EPA for its use as a tool in Hawaii, and has been employed effectively in daily assessments. Bacteriological assessments for this report were based only on enterococci data.

#### **B.2.4. Assessment Units**

Hawaii's topographical structure is generally comprised of short, small watersheds defined by steep mountain walls. Input of fresh waters into the fronting marine waters is generally limited to the specific watershed that feeds those streams. In future cycles it is hoped that watershed names will be included to organize listings for both inland and marine waters. It is hoped that the restructuring of the assessment units may provide a more seamless integration of both water-

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<sup>2</sup> Byappanahalli, M and R. Fujioka. 2004. Indigenous soil bacteria and low moisture may limit but allow fecal bacteria to multiply and become a minor population in topical soils. *Water Science and Technology*. vol. 50, 1:27-32.

<sup>3</sup> Gruber, S.J., Kay, L.M., Kolb, R., and Henry, K. 2005 Mission Bay bacterial source identification study-A Clean Beaches initiative grant helps track causes of contamination. *Stormwater*. vol 6,3:40-51.

<sup>4</sup> EPA - Office of Water, Office of Research and Development. 2007. *Report of the Experts Scientific Workshop on Critical Research Needs for the Development of New or Revised Recreational Water Quality Criteria*. EPA 823-R-07-006. (June 15, 2007).



types. Water Quality Standards Maps are located on the CWB website:  
<http://hawaii.gov/health/environmental/water/cleanwater/wqstd/index.html>.

Delineated units from the previous 2008/2010 Report were carried over to this 2012 Report. Each named segment corresponds to an identification alphanumeric geocode (e.g. Royal-Moana Beach is geocode HI898947), which is used to identify the segments in Tables 2-4. A discussion on the geocodes is found in the following section, Assessment Codes.

### **B.2.5. Assessment Codes (Geocode IDs)**

The alphanumeric codes (geocodes) assigned to each marine waterbody in the 2008/2010 Integrated Report were retained for the 2012 Report. Two sets of geocodes exist in the Hawaii structure, a two-letter alphanumeric (HI) and 3-letter alphanumeric (HIW). The numeric portion of both geocodes is preceded by the state abbreviation (HI) as suggested by EPA protocol. The two-letter geocode is from an existing structure of the EPA BEACH program that identifies recreational waters across the state. The three-letter code was generated in response to areas where BEACH codes do not exist and areas that are divided into small subsections. Each code is comprised of a total of eight characters, and is not ordered.

### **B.3. Assessment Results**

Table 1 below summarizes the results of the assessment. Of the approximately 575 marine waterbody segments already established statewide, 310 (54%) waterbody segments are assessed for this report.

**TABLE 1. Category Totals by Island**

Island	Total # Assessed Segments	# Segments w/ Listed Pollutant	# Newly Listed Pollutants	# Newly Listed Waterbodies	# Delisted Pollutants	# Delisted Waterbodies
Kauai	33	23	5	2	3	2
Oahu	134	73	16	8	7	0
Molokai	0	3	0	0	0	0
Lanai	7	7	0	0	2	1
Maui	62	76	34	5	3	1
Hawaii	74	43	48	11	6	1
<b>Totals</b>	<b>310</b>	<b>225</b>	<b>103</b>	<b>26</b>	<b>21</b>	<b>5</b>

A total of five waterbodies were delisted (no category 5 listing present). Table 2 displays the delisted waterbodies. Assessment results for four delisted waterbodies showed that state standards were attained for enterococci, using the enterococci indicator bacteria as mentioned earlier in the document. Manele Bay Beach showed attainment of the state's Total Nitrogen standard.

**TABLE 2. Delisted Marine Waterbodies**

Island	Scope of Assessment	Geocode	Enterococci	TN	NO3 + NO2	TP	Turb	chl-a	NH4
Kauai	Lydgate Park	HI798758	<b>A</b>	?	?	?	?	?	?
Kauai	Wailua (Wailua River Station)	HI606168	<b>A</b>	?	?	?	?	?	?
Lanai	Manele Bay Beach	HIW00178	?	<b>A</b>	A	A	A	A	A
Maui	Ukumehame Beach Co. Pk.	HI814309	<b>A</b>	?	?	?	?	?	?
Hawaii	Kamakaokahonu	HIW00032	<b>A</b>	?	?	?	?	?	?

Key: Enterococci=enterococci; TN=Total Nitrogen; NO3+NO2=Nitrate+Nitrite Nitrogen; TP=Total Phosphorus; Turb=Turbidity; chl-a=chlorophyll a; NH4=Ammonium Nitrogen; **BOLD A**=Delisted pollutant (data shows attainment of the state water quality standard).

A total of 19 previously listed waterbodies had one or more pollutants delisted, for a total of 21 delisted pollutants. Assessment results for 124 waterbodies showed that State standards were newly attained for enterococci.

A total of 25 new waterbodies were listed with at least one category "5", and a total of 17 previously listed waterbodies had one or more pollutants added to category "5", for a total of 103 newly listed pollutants. Table 3 lists the newly listed waterbodies. Assessments of the newly listed waterbodies showed that State standards for enterococci were not met for 13 waterbodies. State standards for nutrients were not met for 14 of the newly listed waterbodies.

**TABLE 3. Newly Impaired (Listed) Marine Waters**

Island	Scope of Assessment	Geocode	Entero	TN	NO <sub>3</sub> + NO <sub>2</sub>	TP	Turb	chl-a	NH <sub>4</sub>	other
Kauai	Lumaha'i Beach	HI889639	N	?	?	?	?	?	?	
Kauai	Waimea Rec Pier St Pk	HI245235	N	?	?	?	?	?	?	
Oahu	Ewa (open coastal)	HIW00189	N	A	A	A	A	A	A	
Oahu	Ka'alawai Beach	HI253930	N	?	?	?	?	?	?	
Oahu	Kapoho Point	HIW00192	N	?	?	?	?	?	?	
Oahu	Keehi Lagoon	HIW00009	N	?	?	?	?	?	?	
Oahu	Kuli'ou'ou	HI360513	N	?	?	?	?	?	?	
Oahu	Laenani Beach Co Pk	HI930562	N	?	?	?	?	?	?	
Oahu	Punaluu Beach Park	HI148836	N	?	?	?	?	?	?	
Oahu	Sandy Beach (open coastal)	HIW00191	?	N	A	A	A	?	A	
Maui	Honolua Bay	HI280286	A	N	N	N	?	N	N	
Maui	Kahului Bay	HIW00195	?	N	N	N	?	N	N	
Maui	Kalama Beach Co Park (Cove Park)	HI705118	A	N	N	N	?	N	N	
Maui	Maliko Bay	HI423064	N	?	?	?	?	?	?	
Maui	Napili Bay	HI764060	A	A	N	N	?	N	N	
Hawaii	Banyan's Surfing Area	HI713314	N	?	?	?	?	?	?	
Hawaii	Kapoho Bay	HI391407	N	?	?	?	?	?	?	
Hawaii	Kauilii Pt-Kapaa Beach Park	HIW00201	?	N	N	A	A	N	N	
Hawaii	Kauilii Pt-Kapaa Bch (oceanic)	HIW00202	?	N	A	N	N	N	A	
Hawaii	Keahole Point	HIW00203	?	A	A	A	N	A	N	<b>PO4(A)</b>
Hawaii	Mahukona Harbor	HIW00197	?	N	N	A	N	N	N	
Hawaii	Mahukona Harbor (oceanic)	HIW00198	?	N	A	N	N	N	A	
Hawaii	Makaohule Pt-Kauilii Pt	HIW00199	?	N	N	A	A	N	N	
Hawaii	Makaohule Pt-Kauilii Pt (oceanic)	HIW00200	?	N	A	N	N	N	A	
Hawaii	Pelekane Bay	HI738158	N	N	N	N	?	N	N	
Hawaii	Waiulaula	HI934020	A	N	N	N	?	N	N	

Key: Entero=enterococci; TN=Total Nitrogen; NO<sub>3</sub>+NO<sub>2</sub>=Nitrate+Nitrite Nitrogen, TP=Total Phosphorus; Turb=Turbidity; chl-a=chlorophyll a; NH<sub>4</sub>=Ammonium Nitrogen; **BOLD A**=Newly Delisted pollutant (data shows attainment of the state water quality standard); **BOLD N**=Newly Listed pollutant (data shows non-attainment of the state water quality standard).

Two tables are provided to display changes that have occurred since the previous listing period, Table 4 and the 2012 Waterbody Assessment Decisions Table (Chapter 3). Table 4 is provided to aid the reader in tracking any changes from the 2008/2010 Integrated Report for marine/estuary waters to the 2012 cycle. The first column of Table 4, entitled Scope of Assessment, contains the specific name of the area that the assessment applied to. The second column, Geocode ID, contains the alphanumeric identifier for the waterbody. Column 3 contains the pollutant where a change has occurred. Column 4 lists the action taken to categorize the waterbody as a result of assessed data. Column 5 describes the justification for each action taken. Column 6 describes the reasons for the change.

Assessment results for each waterbody were categorized according to EPA methods, and placed in the 2012 Waterbody Assessment Decision table in Chapter 3, for both marine and inland waters. Inland waters are discussed in Chapter 2. The following narrative only applies to the marine section of the Waterbody Assessment Decision table. The first column contains the waterbody type, as distinguished by HAR §11-54. The second column, Scope of Assessment, is the name of the specific area that the assessment applies to. The third column contains the Geocode ID, which is the alphanumeric identifier attached to each listing. Column 4 denotes which criteria (wet or dry) the assessed segment is located in. Columns 5 through 9 contain common pollutants found in Hawaii's waters, and Column 10 lists other less frequently found pollutants. The eleventh column contains the assessment categories that apply to each waterbody. As described earlier, the multi-category assessment allows for a better description of each waterbody. The last column states the TMDL priority and indicates which TMDLs are currently under development or completed.

If the calculated level of a pollutant was found to be above the State standard, the parameter was entered in columns 5 through 10 as "Not Attaining" (N) and assigned to either category "5" or "4b". For this listing cycle, category "4b" was assigned to a waterbody where enterococcus levels were above state standards. An active consent decree in effect for a discharger into this waterbody demonstrates that steps are being taken to address the water quality impairment by methods other than a TMDL within a reasonable timeframe.<sup>5</sup> If the calculated value was below the stated value, the parameter was entered as "Attaining" (A) and assigned to category "2". It is important to note that the marine waterbodies entered in the table are not reflective of all marine areas of the state. Rather, they indicate areas where sampling has taken place, and areas of higher incidence of human contact. Areas not shown in the table do not have any sampling data available, and are considered to be in category "3". Ensuing cycles may add waters as necessary. Parameters where no data were available were coded with a "?" and also assigned to category "3".

The Waterbody Assessment Decisions Table in Chapter 3 contains a number of waterbodies that are similar in name to other waterbodies (indicated by an asterisk \*); these are not duplicates. These waterbody entries are from previous 303(d) listing cycles and were listed at that time as separate entries from similar sampling stations.

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<sup>5</sup> Information on the consent decree with the City and County of Honolulu can be found at <http://www.epa.gov/compliance/resources/cases/civil/cwa/honolulu.html>

**TABLE 4. Category List of Changes from 2008/2010 Listed Coastal Waters**

- A multi-category listing method was employed for 2012 to better characterize water quality conditions.
- The Pollutants column is populated with pollutants on which a *change* has occurred (e.g. new listing, delisting, etc.).
- Pollutants: entero=enterococci; TN=Total Nitrogen; NO3+NO2=Nitrate+Nitrite nitrogen; TP=Total Phosphorus; Turb=Turbidity; chl-a=chlorophyll a; NH4=ammonium nitrogen; PO4=Phosphate.
- For the purposes of this report, listed water bodies are sorted by island, north to south.
- Summary Rationale Codes: NND=New Numerical Data; NL=New Listed Impairment (category 5); DL=Delisting (category 5 to 2); A2=Assigning of category 2; A4b=Assigning of category 4b; TC=Textual Change.

KAUAI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Hanalei Bay upstream of Dolphin*	HIW00160	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.
Hanalei River	HI385259	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.
Kealia	HI402035	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Lumaha'i Beach	HI889639	entero	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Lydgate Park	HI798758	entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2.
Na Pali Coast State Park	HI709808	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from DRY to WET.
Nawiliwili Bay (Kalapaki Beach)	HIW00114	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.
		chl-a	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.

KAUAI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Nawiliwili Bay (Nawiliwili Harbor)	HIW00115	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.
		entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2.
		chl-a	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Nawiliwili Bay-from breakwater to shore	HIW00059	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.
Nu'alolo	HI945520	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from DRY to WET.
Pacific Missile Range Facility	HI176480	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Sheraton Beach	HI542569	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Shipwreck Beach	HI358435	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Waikoko Estuary	HIW00162	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.
Wailua (Wailua River Station)	HI606168	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Estuary to Coastal.
		entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2.
Waimea Bay Beach (Near River station)	HI862821	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from NA to DRY.
Waimea Bay Beach-nearshore waters to 18' from Kekaha Oomano Pt. - 1.5 miles SE of Mahinaui Stream	HIW00057	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.

KAUAI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Waimea Rec. Pier St. Pk.	HI245235	entero	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Waioli Stream Estuary	HIW00163	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.
Waipa Stream Estuary	HIW00164	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.

OAHU					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Aukai Beach Co. Park	HI145110	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Diamond Head	HI544313	Geocode ID	Correction	TC	Correction of mislabeled geocode ID to match BEACH Report from HI431723 to HI544313.
Ehukai Beach Co. Pk.	HI531535	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Ewa (open coastal)	HIW00189	entero		NND, A4b	<b>Assign cat. 4b;</b> The assessment of new data documents indicate that applicable WQS are not being attained. Pollution is being addressed through pollution control requirements other than a TMDL.
Ewa Beach	HI767464	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Fort Hase Beach	HI410735	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Halona Cove	HI132946	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Hanauma Bay (oceanic)	HIW00017	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Bay to Oceanic.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from DRY to NA.
Honolulu Harbor & Shore area-Honolulu Waterfront-Aloha Tower	HIW00061	NO3+NO2		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		Turb	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for total nitrogen, resulting in a category change from 5 to 2.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.



OAHU					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Ihilani Honu Lagoon	HI815093	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Ihilani Ulua Lagoon	HI550240	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Iroquois Pt.	HI412839	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Coastal to Pearl Harbor.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.
		entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Ka'alawai Beach	HI253930	entero	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Ka'ena Pt.	HI645485	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kahe Pt. Beach Co. Pk.	HI548986	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kahuku Golf Course	HI989341	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Estuary to Coastal.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from NA to DRY.
Kaiaka Bay	HIW00106	entero	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Kaihalulu Beach	HI668562	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kaipapa'u Beach	HI787959	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.

OAHU					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Kaloko (Queens) Beach	HI353985	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kaneohe Bay (Central Region)	HIW00013	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from DRY to WET.
Kaneohe Bay (Northern Region)	HIW00012	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from DRY to WET.
Kaneohe Bay (Southern Region)	HIW00011	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from DRY to WET.
Kapi'olani Park	HI733929	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.
		entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kaunala Beach	HI622160	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kea'au Beach Co. Park	HI730738	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kealia Beach	HI612698	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Keehi Lagoon	HIW00009	entero	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Kokololio Beach	HI767708	Geocode ID	Correction	TC	Correction of mislabeled geocode ID to match BEACH Report from HI467112 to HI767708.
Kualoa Sugar Mill Beach	HI484535	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kuhio Beach	HI681782	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.

OAHU					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
		entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for total nitrogen, resulting in a category change from 5 to 2.
		chl-a	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Kuhio Beach (Public Bath)	HI851298	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Laniloa Peninsula (Beach)	HI201901	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Laukinui Beach	HI739818	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Lualualei Beach Co. Park	HI800877	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Makao Beach	HI147212	Geocode ID	Correction	TC	Correction of mislabeled geocode ID to match BEACH Report from HI542752 to HI147212.
		entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Mamala Bay (Oceanic)	HIW00015	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Coastal to Oceanic.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.
Manner's Beach	HI717740	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Maunalua Bay	HIW00016	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Bay to Coastal.

OAHU					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.
Mokule'ia Beach Co. Park	HI220308	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
North Beach	HI426406	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Ohikilolo Beach (Barking Sands)	HI731423	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Oneawa Beach	HI952205	entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2.
Outrigger Canoe Club Beach	HI943325	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.
		entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Pahipahi'alua Beach	HI575467	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Papa'iloa Beach	HI478834	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Papaoneone Beach	HI990625	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Pearl Harbor	HIW00006	Turb	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2.
Pipeline, The	HI188157	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.

OAHU					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Pokai Bay (oceanic)	HIW00019	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Bay to Oceanic.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to NA.
Pokai Bay (open coastal)	HIW00018	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Bay to Coastal.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
		entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		TN	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for total nitrogen, resulting in a category change from 5 to 2.
		NO3+NO2		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		TP		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		Turb	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		chl-a	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for total nitrogen, resulting in a category change from 5 to 2.
		NH4		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Pounders Beach	HI587568	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.

OAHU					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Punaluu Beach Park	HI148836	entero	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Pupukea Beach Co. Park	HI193495	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Pu'uiki	HI437024	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Pu'uohulu Beach	HI960731	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Queen's Surf Beach Park	HIW00069	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.
Sand Island	HI714359	Scope of Assessment	Correction	TC	Correction of scope of assessment to match BEACH Report from Sand Island Pt.#2 to Sand Island.
		TN	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for chl-a, resulting in a category change from 5 to 2.
		NO3+NO2	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		TP		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		NH4		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Sans Souci	HI617815	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.
		TN	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.

OAHU					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
		chl-a	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Swanzy Beach Co. Park	HI151343	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Tongg's	HI248913	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.
Turtle Bay	HI776670	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Waiale'e	HI109657	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Waialua Bay	HI451176	Scope of Assessment	Correction	TC	Correction of scope of assessment to match BEACH Report from Haleiwa Ali'i to Waialua Bay.
Waialua/Kaiaka Bays Nearshore waters to 60' from Puaena Point to a point 1.5 miles W of Kaiaka Pt.	HIW00083	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to WET.
War Memorial Natatorium	HI624259	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to DRY.

MOLOKAI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Papalaua	HI462219		Correction	TC	Delete scope of assessment entry. Correction of misplaced island from Molokai to Maui.
South Molokai Coast-nearshore waters to 18' from SW point-Waialua	HIW00052	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.



LANAI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Kawaiu Gulch-Makole Pt.	HIW00133	TN	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2.
Manele Bay Beach	HIW00178	TN	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2.

MAUI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Ahihi-Kina'u Natural Area Reserve	HIW00084	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Bay to Coastal.
Hanaka'o'o Beach Co. Pk.	HI797917	entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2.
		TN		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		TP	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		chl-a	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Honokowai Beach Co. Pk.	HI412391	Scope of Assessment	Correction	TC	Correction of scope of assessment to match BEACH Report. Delete (Hale Onoloa Condo).
		entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		TN		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		NO3+NO2	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		TP	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2.

MAUI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Honolua Bay	HI280286	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		TN	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NO3+NO2	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		TP	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		chl-a	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Ka'anapali (Kahekili Beach)	HI643627	TN		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		NO3+NO2	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		TP		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		chl-a		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.

MAUI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Ka'anapali (Sheraton Kaanapali Shoreline)	HIW00022	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kahana (Mahinahina Condo Shoreline)	HI160433	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		TN	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NO3+NO2	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Kalama Beach Co. Park (Beach)	HIW00023	TP	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Kalama Beach Co. Park (Cove Park)	HI705118	TN	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NO3+NO2	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		TP	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		chl-a	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.

MAUI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Kalepolepo Beach	HI647373	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kamaole Beach 1	HI761092	TN		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		NO3+NO2	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		TP	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Kanaha Beach (Kaa Shoreline)	HIW00020	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kihei Coast-Cove Park*	HIW00167	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
Kihei Coast-Estuary Boat Ramp	HIW00166	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
Kihei Coast-Kalepolepo	HIW00039	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
Kihei Coast-Kaonoulu Estuary	HIW00040	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to NA.
Kihei Coast-Kealia Pond	HIW00070	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to NA.
Kihei Coast-Keawakapu*	HIW00074	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
Kihei Coast-Kulanihakai	HIW00043	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
Kihei Coast-Lipoa South	HIW00072	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
Kihei Coast-Luana Kai	HIW00041	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.

MAUI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Kihei Coast-Maui Coast	HIW00073	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
Kihei Coast-Mokulele	HIW00042	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
Kihei Coast-South Kam II	HIW00071	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
Ku'au Bay	HI276573	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Lahaina Harbor	HIW00137	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Coastal to Bay.
Ma'alaea Boat Harbor station*	HIW00082	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Coastal to Bay.
Mai Poina Oe Iau Beach Co. Pk. (Kihei N. station)	HI715975	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Makena Landing Beach	HI245556	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Maliko Bay	HI423064	entero	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Malu'aka Beach	HI847607	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Mokapu Beach Park	HI861961	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Mokule'ia Beach	HI977299	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Napili Bay	HI764060	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.

MAUI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
		TN		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		NO3+NO2	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		TP	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		chl-a	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Olowalu (Shorefront)	HIW00021	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Oneloa Beach (Big Beach) (Makena Bch Station)	HI279887	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Oneuli Beach	HI756040	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Palauea Beach Park	HI997014	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Papalaua	HI462219	Geocode ID	Correction	TC	Correction of mislabeled geocode ID to match BEACH Report from HIW00065 to HI462219. Moved from misplaced Molokai.
		entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Polo Beach Park	HI339656	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.

MAUI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Po'olenalena Beach	HI684864	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Puamana Beach Co. Park	HI167153	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Pu'u ola'i (Small Beach)	HI157533	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Ukumehame Beach Co. Pk.	HI814309	entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2.
Ulua Beach Park	HI588333	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Wahikuli State Wayside Park	HI169380	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Waiehu Beach Co. Park	HI916183	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Waihe'e	HI343702	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
West Maui Coast-Hanakeana Cove	HIW00044	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
West Maui Coast-Kahana Cove	HIW00045	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
West Maui Coast-Kahana Sunset	HIW00075	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
West Maui Coast-Kahana Village	HIW00076	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
West Maui Coast-Kaopala Bay	HIW00046	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.



MAUI					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
West Maui Coast-Lokelani	HIW00077	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
West Maui Coast-Napili Bay	HIW00078	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
West Maui Coast-nearshore waters to 60' from Honolua - Lahaina	HIW00060	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
West Maui Coast-S-Turns (Pohaku)	HIW00047	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
West Maui-Papakea	HIW00079	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
West Maui-Puamana	HIW00080	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.

HAWAII					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
2nd Beach (next to Mahaiula)	HI616452	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Banyan's Surfing Area	HI713314	entero	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Hakalau Co. Pk.	HI138086	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Hilo Bay (Boat Landing)	HIW00027	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Hilo Bay (Canoe Beach)	HI315019	entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for chl-a, resulting in a category change from 5 to 2.
		TN	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NO3+NO2	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		TP	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		chl-a		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Hilo Bay (Lighthouse)	HIW00028	entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for chl-a, resulting in a category change from 5 to 2.

HAWAII					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
		chl-a	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for chl-a, resulting in a category change from 5 to 2.
Honokohau Boat Harbor	HIW00099	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria to DRY.
Honoli'i Beach Co. Park	HI857411	entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for chl-a, resulting in a category change from 5 to 2.
Ho'okena	HI152572	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Kona to Coastal.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from NA to DRY.
		entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
James Kealoha Park	HI670254	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.
Kalapana Beach (new) (Harry K. Brown Beach Co. Park)	HI542822	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kamakaokahonu	HIW00032	entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for chl-a, resulting in a category change from 5 to 2.
Kapoho Bay	HI391407	entero	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
Kapu'a Bay	HIW00067	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Kona to Coastal.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from NA to DRY.
Ka'upulehu	HI770607	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.

HAWAII					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Kawaihae Harbor	HI978783	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Kona to Bay.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from NA to DRY.
Kawaihae Harbor/Pele Kane Bay	HIW00155	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Kona to Bay.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from NA to DRY.
Kealahou Bay (Off Curio Stand)	HIW00183	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kealia Beach	HI514168	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Kona to Coastal.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from NA to DRY.
Keaukaha Beach Park	HI849313	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.
Kehena	HI459942	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Kolekole Beach Co. Park	HI693485	entero	Delist Pollutant	NND, DL	<b>DELIST: cat. 2;</b> The assessment of data documents indicate that applicable WQS are now being attained for chl-a, resulting in a category change from 5 to 2.
Laupahoehoe Beach Co. Park	HI380623	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Lehia Beach	HI691720	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.
		entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Leleiwi Beach Co. Pk.	HI540868	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.
Leleiwi Beach Co. Pk. (Richardson Ocean Ctr.)	HIW00030	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.

HAWAII					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Manini'owali	HI720408	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Miloli'i Beach	HI470112	Waterbody Type	Correction	TC	Correction of mislabeled waterbody type from Kona to Coastal.
		Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from NA to DRY.
		entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Old Kona Airport St. Rec. Area	HI256093	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Onakahakaha Beach Co. Pk. (Puhi Bay #3)	HIW00029	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Pine Trees	HI320616	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Punalu'u	HI224651	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Wailoa River (Boat Ramp)	HIW00172	Wet/Dry Criteria	Correction	TC	Correction of mislabeled wet/dry criteria from WET to NA.
		TN	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NO3+NO2	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		TP	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.
		NH4	List Pollutant	NND, NL	<b>ASSIGN cat. 5;</b> The assessment of new data documents indicate that applicable WQS are not being attained.

HAWAII					
Scope of Assessment	Geocode ID	Pollutant	Decision Action	Summary Rationale	Reason for Changes
Wawaloli Beach	HI643938	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.
Whittington Beach Co. Pk.	HI720900	entero		NND, A2	<b>Assign cat. 2;</b> The assessment of new data documents indicate that applicable WQS are being attained.

## CHAPTER 1: LIST OF REFERENCES

Byappanahalli, M and R. Fujioka, 2004. Indigenous soil bacteria and low moisture may limit but allow fecal bacteria to multiply and become a minor population in topical soils. *Water Science and Technology*. vol. 50, 1:27-32.

EPA Office of Water, Office of Research and Development. 2007. *Report of the Experts Scientific Workshop on Critical Research Needs For the Development of New or Revised Recreational Water Quality Criteria*. EPA 823-R-07-006. (June 15, 2007).

EPA Monitoring and Assessing Water Quality (n.d.). Retrieved September 27, 2006, from <http://water.epa.gov/lawsregs/guidance/cwa/305b/index.cfm>

EPA - Watershed Branch. 2005. *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act* (July 29, 2005).

EPA - Watershed Branch. 2009. *Information Concerning 2010 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions* (May 5, 2009).

Gruber, S.J., Kay, L.M., Kolb, R., and Henry, K. 2005. Mission Bay bacterial source identification study-A Clean Beaches initiative grant helps track causes of contamination. *Stormwater*. vol.6, 3:40-51.

U.S. EPA. 1986. Ambient water quality criteria for bacteria - 1986. EPA 44015-84-002, Office of Water Regulations and Standards, U.S. Environmental Protection Agency, Washington, DC.

U.S. EPA. *Water Quality Standards for Coastal and Great Lakes Recreation Waters; Final Rule*. Federal Register 69:220 (16 November 2004).

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## **Chapter 2**

### **Inland Waters**

## **PART A. SCOPE OF WATERS**

This chapter of the 2012 Integrated Report covers all fresh waters of salinity less than 0.5 parts per thousand. Assessment units for the 2012 Integrated Report remain the same as the assessment units applied in the previous reports. Inland waters are partitioned according to the Hawaii Administrative Rules (HAR) §11-54 by type. Please see methodology section in Part B.1. for details regarding decision units for attainment decisions.

There were no new inland water data assessed for this 2012 Integrated Report. There were Total Maximum Daily Load (TMDL) updates for inland waters.

## **PART B. MONITORING AND ASSESSMENT**

### **B.1. Assessment Methodology**

#### **B.1.1. Basic Attainment Decision Unit**

As in previous Clean Water Act Section 303(d) listing cycles, the basic (Tier I) attainment decision unit (hereafter "ADU" or "decision unit") for fresh inland Hawaii waters of salinity <0.5 ppt is the entire network ("EN" in report tables) of hydrologically connected freshwater segments associated with a single listed stream, stream segment, or stream tributary. These freshwater segments, and thus the basic ADU, can include one or more waterbody types as defined by HAR §11-54, including, but not limited to intermittent streams, reservoirs, and wetlands (see Table 1).

#### **B.1.2. Tiered Approach**

A tiered approach, linked with the assessment decision criteria first adopted in the 2002 303(d) listing cycle, was used in past assessments to refine decision units for freshwater stream networks. Tier I ADUs are used for initial attainment decisions as governed by the current 303(d) listing criteria and for defining the geographic scope of "legacy" listings based on visual assessments. Tier II ADUs encompass segments and partial segments that can be more narrowly defined and assessed based on existing monitoring locations, data, and boundaries between waterbody types, and are used for attainment decisions on a case-by-case basis. Tier III ADUs are those established for TMDL development and other intensive monitoring and analysis purposes. Tier IV ADUs are part of Tier III decision units that can be defined based on the most detailed assessment information.

#### **B.1.3. Decision Unit Rationale and Implementation**

HIDOH's current focus on defining ADUs for streams is based on:

- (a) an assumption that streams are the most widespread and important fresh inland waterbody type to assess for reaching marine water quality goals;
- (b) the lack of numeric water quality standards criteria for conventional chemical and physical pollutants in most other fresh waterbody types;
- (c) the unavailability of a complete comprehensive waterbody inventory and present limitations for monitoring and assessing all waterbodies, water quality criteria, and use attainment within each waterbody type.

ADUs for fresh inland waterbodies do not include marine waters or inland brackish or saline waterbody types, such as estuaries and anchialine pools.

Decision unit boundaries for other fresh inland waterbody types are defined on a case-by-case basis when monitoring data and other assessment information is available, but generally encompass the entire waterbody.

#### **B.1.4. Decision Unit Delineation, Naming, Coding, and Geolocation**

Numerous conventions for naming, coding, and geolocating Hawaii waterbodies and decision unit boundaries discussed above have been designed and used over time. Building a comprehensive statewide waterbody inventory that standardizes these conventions for use by HDOH and others is an ongoing intergovernmental resource management task. Waterbody IDs for freshwater decision units are based on the Hawaii Stream Assessment (HSA) Coding System (Hawaii Cooperative Park Service Unit, 1990) with some modifications, as noted in the 2006 Integrated Report.

Geolocation of freshwater decision units is based upon various public domain digital coverages, HDOH field data (GPS coordinates, station description, field mapping, stream surveys, and stream assessments) and similar spatial location data submitted with third-party data packages.

#### **B.1.5. Application of Criteria to Attainment Decisions**

The 303(d) listings apply to the entire freshwater (salinity <0.5 ppt) portion of a stream system, including all hydrologically-connected reaches, unless a case is documented in which small decision units are justified. The same method also applies to other waterbody types.

We urge non-HDOH entities conducting similar monitoring, analysis, and planning activities to consult with HDOH about sampling designs and information management protocols that will facilitate HDOH's ability to use secondary data for attainment decisions. The entire hydrologic network within a watershed is the largest possible unit of decision for inland fresh waterbodies, and may include the boundaries of the following waterbody types as defined by HAR §11-54-1.

HDOH encourages monitoring, analysis, and planning activities that acknowledge and consider the regulatory boundaries between specific waterbody types and demonstrate a rationale for segmenting each waterbody into smaller decision units. The EPA's 2006 Integrated Report Guidance provides a summary of factors to consider in developing these rationales. Water quality criteria and decision unit boundaries for the various waterbody types are shown in Table 1.

**TABLE 5. Applicable Water Quality Criteria and Decision Unit Boundaries for Inland Fresh Waterbodies**

<b>Waterbody Type<sup>1</sup></b>	<b>Applicable Water Quality Criteria<sup>2</sup></b>	<b>Decision unit boundary<sup>3</sup></b>
Flowing seep	Basic/Recreational	Flowpath/Flow Surface
Flowing spring	Basic/Recreational	Flowpath/Flow Surface
Elevated wetland	Basic/Recreational/Wetland	1978 Corps delineation <sup>4</sup>
Low wetland	Basic/Recreational	1978 Corps delineation <sup>4</sup>
Intermittent stream	Basic/Recreational/Water Column/Bottom	Entire network or sub-network <sup>5</sup>
Perennial stream	Basic/Recreational/Water Column/Bottom	Entire network or sub-network <sup>5</sup>
Natural freshwater lake	Basic/Recreational	Lake
Freshwater impoundment <sup>6</sup>	Basic/Recreational	Impoundment
Reservoir	Basic/Recreational	Reservoir
Ditch	Basic/Recreational	Ditch
Flume	Basic/Recreational	Flume
Drainage ditch <sup>7</sup>	Basic/Recreational	Drainage ditch
Canal <sup>7</sup>	Basic/Recreational	Canal

<sup>1</sup>Inland freshwater (salinity <0.5 ppt) waterbody types as defined by HAR §11-54-1. These definitions are applied to the definition of decision units.

<sup>2</sup>Basic criteria (Narrative "free of" and numeric standards for toxic pollutants) established by HAR §11-54-4; Specific (numeric) criteria for inland recreational waters established by HAR §11-54-8(a); Specific (numeric) criteria for stream water column established by HAR §11-54-5.2(b); Specific (numeric) criteria for stream bottom established by HAR §11-54-5.2(b)(2); Specific (numeric) criteria for elevated wetlands established by HAR §11-54-5.2(c).

<sup>3</sup>HAR §11-54-5.1(a) establishes a system of waterbody classification (waterbody class is defined by underlying land use classification) and associated designated uses.

<sup>4</sup>HAR §11-54-1: "...the identification and delineation of wetland boundaries shall be done following the procedures described in the U.S. Army Corps of Engineers Wetland Delineation Manual (USACE 1987)."

<sup>5</sup>According to HAR §11-54-1 "'Stream systems', means the aggregate of water features comprising or associated with a stream, including the stream itself and its tributaries, headwaters, ponds, wetlands, and estuary. A stream system is geographically delimited by the boundaries of its drainage basin or watershed." For stream attainment decision purposes, "associated" is interpreted as "hydrologically connected" and estuaries, ditches, flumes, drainage ditches, and canals are not included in the assessment.

<sup>6</sup>This waterbody type is not defined by rule but is included in the definition of "Standing waters".

<sup>7</sup>This waterbody type is not defined by rule but is included in the definition of "State waters".

### **B.1.6. Methodology for Attainment Decisions**

While there are no changes from the 2008/2010 List of impaired waters, it is important to provide both documentation and consistency when making listing decisions. Use of standardized criteria will enable HDOH to periodically collect and assess datasets for use in waterbody assessments. Photos are required for inland waters to ensure location information is correct. Since many places in Hawaii have similar names, photos help to identify the exact location of the sampling event.

Please note that the same information requirements apply to delisting as well as listing decisions. Datasets and supporting documentation are evaluated against both numeric and narrative criteria

where applicable. Listings for inland waters generally apply to the entire freshwater (salinity <0.5 ppt) portion of a stream system unless a case is documented in which the watershed approach is not applicable.

State Water Quality Standards (WQS) set in HAR §11-54 for conventional pollutants, such as nutrients and sediments, are expressed in a statistical format that presents criteria in the form of geometric means not to be exceeded by the geometric mean values computed from datasets. Two storm event allowances are included through the 10% and 2% geometric means not to be exceeded by more than 10% and 2% of the sample values, respectively. The WQS are further divided into "wet" and "dry" criteria, which, for inland waterbodies, refer to the "wet" season as November through April, and "dry" season as May through October. For embayments and coastal waters, these terms refer to the amount of freshwater discharge per shoreline mile.

For statistical significance, "10% of the time" criteria will be evaluated with a minimum sample size of 100 samples, allowing for 10+ samples to exceed the 10% threshold. The "2% of the time" criteria will be evaluated with a minimum sample size of 500 samples, allowing for 10+ samples to exceed the 2% threshold.

In accordance with priority ranking and listing/delisting criteria, waterbodies are sorted into one of three priority categories. Priority 1 waters have sufficient data to clearly support a listing/delisting decision based on separate wet and/or dry conditions. Priority 2 waters have limited data, which requires HDOH to use a weight-of-evidence approach. Priority 3 waters have extremely limited data and require future monitoring before a listing decision can be made. For conventional pollutants, a minimum of ten samples from the wet season and ten samples from the dry season are required for Priority 1. A minimum of ten samples from a combined grouping of wet and dry conditions are required for Priority 2a, and five to nine samples for Priority 2b. Any fewer than five samples results in the assignment of the waterbody and its numeric data into Priority 3.

For toxic pollutants, such as pesticides and heavy metals, which often require expensive analyses, a minimum sample size of three is required for eligibility for Priority 1. Toxic pollutants for freshwaters are characterized by acute and chronic concentration criteria and fish consumption criteria.

Enterococci are the indicator bacteria now used in freshwaters to evaluate waters for public health risks. Enterococci counts are evaluated using data within a 25 to 30 day temporal increment, and compared to applicable geometric mean.

Biological surveys of aquatic communities, fish consumption advisories, and reports of contaminated sediments are also eligible sources of listing information. These surveys are most likely to be placed in Priority 3. Datasets for evaluation of narrative criteria must include at least three sampling events and represent conditions in both wet and dry seasons. These narrative criteria may be evaluated using HDOH-approved habitat or biological assessment methodologies as long as they can be directly correlated to specific narrative criteria in HAR §11-54-04. Also, in accordance with HAR §11-54-04(b)(2)(A), acute toxicity standards for the contamination of sediment may be evaluated using broadly accepted standards such as those

developed in Canada and New York, provided that HDOH deems them appropriate for use in the Hawaiian environment (CCME 1999; NYSDEC 1999).

#### **B.1.7. Data Sources Reviewed**

There were no new data reviewed for the 2012 cycle.

#### **B.1.8. Quality Assurance/Quality Control Considerations**

Quality Assurance/Quality Control (QA/QC) procedures document data quality by describing data collection and analysis procedures. HDOH's Clean Water Branch and Laboratory operate under the terms of the "Quality Management Plan for Surface Water Quality Monitoring" approved by EPA Region IX (December 9, 1999).

Other data submitted from sources outside the HDOH will be evaluated against the Quality Assurance Project Plan (QAPP).

### **B.2. Assessment Results**

#### **B.2.1. Review of Data**

There were no new data reviewed for the 2012 cycle.

#### **B.2.2. Hawaii's 2012 303(d) List**

The 2012 303(d) List contains the waterbodies that were in the 2006 List of Impaired Waterbodies. There are no newly listed streams in the current list. Complete assessment decisions are found in Chapter 3. Waterbodies are prioritized as High, Medium, or Low for Total Maximum Daily Load (TMDL) development. High, medium, or low priorities were assigned to each waterbody based on the number of parameters listed and the severity of exceedances.

TMDLs have been established and approved for watersheds on Oahu. TMDLs for nutrient listed streams on Oahu include Kaneohe Stream (approved 2010), Kamoalii Stream (approved 2010), and the North and South Forks of Kaukonahua Stream (approved 2010). Approved TMDLs are reflected in Chapter 3.

### **B.3. Wetlands Program**

Responsibilities for wetland protection are diffused among various federal, state, and county authorities. There is no formal wetland program in HDOH.

### **B.4. Public Health Issues**

#### Leptospirosis Threat

Leptospirosis is not included as a specific water quality standard parameter. However, all freshwaters within the state are considered potential sources of Leptospirosis infection by the epidemiology section of the HDOH. No direct tests have been approved or utilized to ascertain

the extent of the public health threat through water sampling. Epidemiologic evidence has linked several illness outbreaks to contact with freshwater, leading authorities to issue blanket advisories for all fresh waters of the state.

#### Fish Consumption Advisory

Several locations have been identified and posted as areas where fish and shellfish should not be consumed. These areas include: Pearl Harbor, Ala Wai Canal, and urban streams of Honolulu. Contamination of fish and shellfish include organochlorine pesticides and/or PCBs and lead.

## **CHAPTER 2: LIST OF REFERENCES**

Canadian Council of Ministers of the Environment (CCME). 1999. *Canadian Sediment Quality Guidelines for the Protection of Aquatic Life*.

Commission on Water Resources Management – State of Hawaii (CWRM) and the National Parks Service (NPS). 1990. *Hawaii Stream Assessment: A Preliminary Appraisal of Hawaii's Stream Resources*. Report R-84.

EPA – Watershed Branch. 2005. *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act (July 29, 2005)*.

Henderson, Katina and June Harrigan-Lum. 2002. *2002 List of Impaired Waters Prepared Under Clean Water Act 303(d)*. Hawaii State Department of Health.

Koch, Linda, June Harrigan-Lum and Katina Henderson. 2004. *2004 List of Impaired Waters Prepared Under Clean Water Act 303(d)*. Hawaii State Department of Health.

New York State Department of Environmental Conservation (NYSDEC), Division of Fish, Wildlife and Marine Resources. 1999. *Technical Guidance for Screening Contaminated Sediments*.



### Chapter 3

## 2012 Waterbody Assessment Decisions [Integrated 303(d) List/305(b) Report for Hawaii]

- New 303(d) listings are shaded, **bold** and *italicized* in the table, as are any changes for previously listed waters.
- **Stream codes:** EN = Entire Network, EE = Entire Estuary, ER = Entire Reservoir, EW = Entire Wetland, EL = Entire Lake.
- **Marine Codes:** B = Bay (as specified within HAR §11-54-6), C = Open Coastal (fronting areas within 1000' and 100 fathoms of specified area), O = Oceanic (area beyond open coastal), E = Estuary, K = Kona (all marine waters of Hawaii Island from Loa Point, South Kona District, clockwise to Malae Point, North Kona District, excluding Kawaihae Harbor and Honokohau Harbor, and for all areas from the shoreline at mean lower low water to a distance 1000m seaward (see HAR 11-54-6)), P = Pearl Harbor; \* = Listings from previous reporting cycles which, at that time, were then listed as separate entities from similar named sampling stations, convention continued for this cycle.
- **Decision Codes:** ? = unknown, N = not attained, A = attained, Ac = attained (with combined season data), Nc = not attained (with combined season data), N1 = not attained (by 2 times the standard), N1c = not attained (by combined data, 2 times the standard), V = visual listing from 2001-2004, Y = previous listing from 1998 or earlier, T = TMDL approved for parameter.
- **Parameter Codes:** Total N = total nitrogen; NO<sub>3</sub>+NO<sub>2</sub> = nitrate+nitrite nitrogen; Total P = total phosphorus; TURB = turbidity; TSS = total suspended solids; chl-a = chlorophyll a; NH<sub>4</sub> = ammonium nitrogen; PO<sub>4</sub> = phosphate.
- **Category:** 1 = All uses attained, 2 = Data show some uses attained, 3 = Not enough data to evaluate, 4 = Data show at least one use not attained, but no TMDL needed, 4a = TMDL approved, 4b = Pollutant is being addressed by the state through other pollution control requirements, 5 = Data show at least one use not attained, TMDL needed.
- **TMDL Priority Codes:** High (H), Medium (M), and Low (L) priority for initiating TMDL development within the current monitoring and assessment cycle (through October 31, 2011), based on current and projected resource availability for completing the TMDL development process. IP = TMDL development in progress.
- For this report, assessed water bodies were sorted by island (north to south), then into the streams category (salinity below 0.5 ppt) or the marine (coastal) category (salinity above 0.5 ppt).

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KAUAI Stream Waters													
Assessed Waterbody	Waterbody Type	Scope of Assessment	Geocode ID	Season	enterococci	Total N	NO3+NO2	Total P	TURB	TSS	Other Pollutants	Category	TMDL Priority
Aakukui	Stream	EN	2-4-02		?	?	?	?	?	?		3	
Aliomanu	Stream	EN	2-1-36		?	?	?	?	?	?		3	
Anahola	Stream	EN	2-2-01	Dry	?	Ac	A	A	N	A		2,3,5	L
Anahola	Stream	EN	2-2-01	Wet	?	Ac	Ac	Ac	N	Ac		2,3,5	L
Hanakapiai	Stream	EN	2-1-10		?	?	?	?	?	?		3	
Hanalei	Stream	EN	2-1-19	Dry	T	A	A	A	T	A		2,4a	TMDLs approved 2008 (Turb, & bacteria)
Hanalei	Stream	EN	2-1-19	Wet	T	A	A	A	A	A		2,4a	TMDLs approved 2008 (bacteria)
Hanamaulu	Stream	EN	2-2-12	Dry	?	?	?	?	N	?		3,5	L
Hanamaulu	Stream	EN	2-2-12	Wet	?	?	?	?	N	?		3,5	L
Hanapepe	Stream	EN	2-3-07	Dry	?	A	A	A	N	A		2,3,5	L
Hanapepe	Stream	EN	2-3-07	Wet	?	Ac	Ac	Ac	V	Ac		2,3,5	L
Huleia	Stream	EN	2-2-15	Dry	T	T	T	T	T	T		4a	TMDLs approved 2008
Huleia	Stream	EN	2-2-15	Wet	T	T	T	T	T	T		4a	TMDLs approved 2008
Kalihiwai	Stream	EN	2-1-25		?	?	?	?	?	?		3	
Kapaa	Stream	EN	2-2-04	Dry	?	A	A	A	N	A		2,3,5	L
Kapaa	Stream	EN	2-2-04	Wet	?	A	A	A	N	A		2,3,5	L
Kilauea	Stream	EN	2-1-28	Dry	?	A	A	A	N	A		2,3,5	L
Kilauea	Stream	EN	2-1-28	Wet	?	Ac	Ac	Ac	N	Ac		2,3,5	L
Kipu	Stream	EN	2-3-01		?	?	?	?	?	?		3	

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KAUAI Stream Waters													
Assessed Waterbody	Waterbody Type	Scope of Assessment	Geocode ID	Season	enterococci	Total N	NO3+NO2	Total P	TURB	TSS	Other Pollutants	Category	TMDL Priority
Lawai	Stream	EN	2-3-04	Dry	?	N	N	A	N	A		2,3,5	L
Lawai	Stream	EN	2-3-04	Wet	?	Ac	Ac	Ac	N	Ac		2,3,5	L
Limahuli	Stream	EN	2-1-12	Dry	?	A	N	A	?	A		2,3,5	L
Limahuli	Stream	EN	2-1-12	Wet	?	?	?	?	Ac	?		2,3	
Lumahai	Stream	EN	2-1-15		?	?	?	?	?	?		3	
Mahinauli	Stream	EN	2-4-01		?	?	?	?	?	?		3	
Manoa	Stream	EN	2-1-13	Dry	?	Ac	Ac	Ac	N1	Ac		2,3,5	L
Manoa	Stream	EN	2-1-13	Wet	?	Ac	Ac	Ac	Nc	Ac		2,3,5	L
Moloaa	Stream	EN	2-1-34	Dry	?	A	A	A	N	A		2,3,5	L
Moloaa	Stream	EN	2-1-34	Wet	?	?	?	?	N	?		3,5	L
Nawiliwili	Stream	EN	2-2-13	Dry	T	T	T	T	T	T		4a	TMDLs approved 2008
Nawiliwili	Stream	EN	2-2-13	Wet	T	T	T	T	T	T		4a	TMDLs approved 2008
Papaa	Stream	EN	2-1-35	Dry	?	N1	N1	Ac	N1	Ac		2,3,5	L
Papaa	Stream	EN	2-1-35	Wet	?	?	?	?	?	?		3	
Puali	Stream	EN	2-2-14	Dry	T	T	T	T	T	T		4a	TMDLs approved 2008
Puali	Stream	EN	2-2-14	Wet	T	T	T	T	T	T		4a	TMDLs approved 2008
Uhelekawawa	Stream	EN	2-2-Uhelekawawa		?	?	?	?	V	?		3,5	L
Wahiawa	Stream	EN	2-3-06	Dry	?	N1	N1	A	N1	A		2,3,5	L
Wahiawa	Stream	EN	2-3-06	Wet	?	Nc	Nc	Ac	Nc	Ac		2,3,5	L
Waikomo	Stream	EN	2-3-02	Dry	?	Nc	N1	Ac	N1	Ac		2,3,5	L

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KAUAI Stream Waters													
Assessed Waterbody	Waterbody Type	Scope of Assessment	Geocode ID	Season	enterococci	Total N	NO3+NO2	Total P	TURB	TSS	Other Pollutants	Category	TMDL Priority
Waikomo	Stream	EN	2-3-02	Wet	?	Nc	Nc	Ac	Nc	Ac		2,3,5	L
Wailua	Stream	EN	2-2-08	Dry	?	Ac	Ac	Ac	N	Ac		2,3,5	L
Wailua	Stream	EN	2-2-08	Wet	?	?	?	?	?	?		3	
Waimea	Stream	EN	2-4-04	Dry	?	A	A	N	N	A		2,3,5	L
Waimea	Stream	EN	2-4-04	Wet	?	Ac	Ac	Ac	V	Ac		2,3,5	L
Waimea	Estuary	EE	2-4-04-E		?	?	?	?	V	?		3,5	L
Wainiha	Stream	EN	2-1-14	Dry	?	Ac	Ac	Ac	Ac	Ac		2,3	
Wainiha	Stream	EN	2-1-14	Wet	?	Ac	Ac	Ac	Ac	Ac		2,3	
Waioli	Stream	EN	2-1-18	Dry	?	A	A	A	A	A		2,3	
Waioli	Stream	EN	2-1-18	Wet	?	?	?	?	?	?		3	
Waipa	Stream	EN	2-1-17	Dry	?	A	A	A	T	A		2,3,4a	TMDL approved 2008 (Turb)
Waipa	Stream	EN	2-1-17	Wet	?	?	?	?	?	?		3	

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KAUAI Marine Waters													
Waterbody Type	Scope of Assessment	Geocode ID	Wet/Dry Criteria	enterococci	Total N	NO3+NO2	Total P	TURB	chl-a	NH4	Other Pollutants	Category	TMDL Priority
C	Aliomanu Beach	HI710019	wet	?	?	?	?	?	?	?		3	
C	Anahola Beach	HI823433	wet	A	?	?	?	?	?	?		2,3	
C	Anahola Beach	HI270737	wet	?	?	?	?	?	?	?		3	
C	Anini Beach	HI338804	wet	?	?	?	?	?	?	?		3	
C	Anini Beach Park	HI418744	wet	A	?	?	?	N	?	?		2,3,5	L
C	Beach House Beach	HI156238	dry	A	?	?	?	?	?	?		2,3	
<b>E</b>	<b>Black Pot Beach Park</b>	<b>HI891354</b>	<b>na</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3</b>	
C	Brennecke Beach	HI166521	dry	A	?	?	?	?	?	?		2,3	
C	Donkey Park	HI853903	wet	?	?	?	?	?	?	?		3	
C	Gillin's Beach	HI976083	dry	?	?	?	?	?	?	?		3	
C	Glass Beach	HI949505	wet	?	?	?	?	?	?	?		3	
C	Haena Beach Park	HI554189	wet	A	?	?	?	N	?	?		2,3,5	L
C	Hanakapi'ai Beach	HI797414	wet	?	?	?	?	?	?	?		3	
B	Hanalei Bay (Landing)	HIW00093	wet	N	?	?	?	N	?	?		3,5	H (IP)
B	Hanalei Bay (Pavilion)	HIW00092	wet	A	?	?	?	N	?	?		2,3,5	H
B	Hanalei Bay (Waioli Beach)	HIW00091	wet	A	?	?	?	N	?	?		2,3,5	H
B	Hanalei Bay Mooring station*	HIW00157	wet	N	?	?	?	?	?	?		3,5	H
E	Hanalei Bay upstream of Dolphin*	HIW00160	<b>na</b>	?	?	?	?	N	?	?		3,5	H (IP)
E	Hanalei River	HI385259	<b>na</b>	N	?	?	?	T	?	?		3,4a,5	M (bacteria & Turb TMDLs approved 2008)
B	Hanama'ulu Bay	HIW00063	wet	?	?	?	?	N	?	?		3,5	L
B	Hanama'ulu Bay (Beach)	HIW00094	wet	N	?	?	?	?	?	?		3,5	L
B	Hanapepe Bay	HIW00095	wet	?	?	?	?	?	?	?		3	

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KAUAI Marine Waters													
Waterbody Type	Scope of Assessment	Geocode ID	Wet/Dry Criteria	enterococci	Total N	NO3+NO2	Total P	TURB	chl-a	NH4	Other Pollutants	Category	TMDL Priority
B	Hanapepe Bay- from breakwater to shore and nearshore waters to 30' from Puolo Point to Paakehi Point	HIW00048	wet	?	Y	Y	Y	?	?	?	nutrients	3,5	L
C	Haula Beach	HI277808	dry	?	?	?	?	?	?	?		3	
C	Kahili Beach	HI533519	wet	?	?	?	?	?	?	?		3	
C	Kalalau Beach	HI908803	wet	?	?	?	?	?	?	?		3	
C	Kalihiwai Bay	HI264001	wet	N	?	?	?	?	?	?		3,5	L
C	Kapa'a Beach Co. Park	HI972832	wet	A	?	?	?	?	?	?		2,3	
C	Kauapea Beach (Secret Beach)	HI669328	wet	?	?	?	?	?	?	?		3	
C	Kawailoa Beach	HI698776	dry	?	?	?	?	?	?	?		3	
C	Kealia	HI402035	wet	A	?	?	?	?	?	?		2,3	
C	Kee Beach	HI124511	wet	A	?	?	?	A	?	?		2,3	
C	Kekaha Beach Co. Pk.	HI530569	dry	A	?	?	?	?	?	?		2,3	
C	Kepuhi Beach	HI344813	wet	?	?	?	?	?	?	?		3	
<b>B</b>	<b>Kikiaola Beach</b>	<b>HI119207</b>	<b>dry</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3</b>	
B	Kikiaola Boat Harbor	HIW00112	dry	?	?	?	?	?	?	?		3	
C	Kilauea Pt. Nat. Wildlife Ref.	HI471488	wet	?	?	?	?	?	?	?		3	
C	Kipu Kai	HI266627	wet	?	?	?	?	?	?	?		3	
C	Koloa Landing	HI955435	dry	N	?	?	?	?	?	?		3,5	L
B	Kukuiula Bay	HIW00113	dry	?	?	?	?	?	?	?		3	
<b>B</b>	<b>Kukui'ula Bay</b>	<b>HI619039</b>	<b>dry</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3</b>	
C	Larsens Beach	HI860960	wet	?	?	?	?	?	?	?		3	
C	Lawa'i Kai	HI434882	wet	?	?	?	?	?	?	?		3	
C	Lumaha'i Beach	HI889639	wet	N	?	?	?	?	?	?		3,5	L
C	Lydgate Park	HI798758	wet	A	?	?	?	?	?	?		2,3	
C	Maha'ulepu Beach	HI533799	dry	?	?	?	?	?	?	?		3	

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Waterbody Type	Scope of Assessment	Geocode ID	Wet/Dry Criteria	enterococci	Total N	NO3+NO2	Total P	TURB	chl-a	NH4	Other Pollutants	Category	TMDL Priority
<b>C</b>	<b>Mana Point</b>	<b>HIW00184</b>	<b>dry</b>	<b>?</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>		<b>2,3</b>	
C	Miloli'i	HI333210	dry	?	?	?	?	?	?	?		3	
C	Moloa'a Bay	HI547745	wet	?	?	?	?	?	?	?		3	
C	Na Pali Coast State Park	HI709808	wet	?	?	?	?	?	?	?		3	
B	Nawiliwili Bay (Kalapaki Beach)	HIW00114	dry	N	A	N	A	?	N	N		2,3,5	M
B	Nawiliwili Bay (Nawiliwili Harbor)	HIW00115	dry	A	A	N	A	?	N	N		2,3,5	M
B	Nawiliwili Bay (Offshore)	HIW00116	wet	?	?	N	?	N	N	N		3,5	M
B	Nawiliwili Bay- from breakwater to shore	HIW00059	dry	?	Y	Y	Y	Y	?	?	nutrients	3,5	M
C	Nu'alolo	HI945520	wet	?	?	?	?	?	?	?		3	
C	Nukoli Beach Park	HI502794	wet	A	?	?	?	?	?	?		2,3	
C	Pacific Missile Range Facility	HI176480	dry	A	?	?	?	?	?	?		2,3	
C	Pakala (Makaweli)	HI468251	wet	?	?	?	?	?	?	?		3	
C	Palama Beach (Nomilu)	HI665178	wet	?	?	?	?	?	?	?		3	
C	Papa'a Bay	HI130639	wet	?	?	?	?	?	?	?		3	
C	Pila'a Beach	HI363048	wet	?	?	?	?	?	?	?		3	
C	Po'ipu Beach Co. Park	HI396850	dry	A	?	?	?	?	?	?		2,3	
C	Polihale State Park	HI247403	dry	A	?	?	?	?	?	?		2,3	
<b>C</b>	<b>Port Allen</b>	<b>HIW00185</b>	<b>wet</b>	<b>?</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>?</b>	<b>A</b>	<b>A</b>		<b>2,3</b>	
B	Port Allen Boat Harbor	HIW00120	wet	?	?	?	?	?	?	?		3	
B	Port Allen Boat Harbor (Port Allen Pier)	HIW00026	wet	?	A	N	A	N	A	N		2,3,5	L
C	Prince Kuhio Park	HI742228	dry	?	?	?	?	?	?	?		3	
C	Princeville	HI520271	wet	?	?	?	?	?	?	?		3	
C	Salt Pond Beach Co. Park	HI701008	wet	A	A	N	A	?	N	N		2,3,5	L
C	Sheraton Beach	HI542569	dry	A	?	?	?	?	?	?		2,3	
C	Shipwreck Beach	HI358435	dry	A	?	?	?	?	?	?		2,3	
C	Spouting Horn Beach Co. Park	HI951651	dry	?	?	?	?	?	?	?		3	

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C	Tunnels Beach	HI936087	wet	?	?	?	?	?	?	?		3	
C	Wahiawa Bay	HIW00121	wet	?	?	?	?	?	?	?		3	
<b>B</b>	<b>Wahiawa Bay</b>	<b>HI179708</b>	<b>wet</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3</b>	
C	Waiakalua Iki Beach	HI505816	wet	?	?	?	?	?	?	?		3	
C	Waiakalua Nui Beach	HI371632	wet	?	?	?	?	?	?	?		3	
<b>B</b>	<b>Waikoko Bay</b>	<b>HI330114</b>	<b>wet</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3</b>	
E	Waikoko Estuary	HIW00162	<b>na</b>	?	?	?	?	T	?	?		3,4a	TMDL approved 2008 (Turb)
<b>C</b>	Wailua (Wailua River Station)	HI606168	wet	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Waimea Bay Beach (Near River station)	HI862821	<b>dry</b>	N	?	?	?	?	?	?		3,5	L
C	Waimea Bay Beach- nearshore waters to 18' from Kekaha Oomano Pt. - 1.5 miles SE of Mahinaui Stream	HIW00057	<b>dry</b>	?	?	?	?	Y	?	?	susp. solids	3,5	L
C	Waimea Rec. Pier St. Pk.	HI245235	dry	<b>N</b>	?	?	?	?	?	?		<b>3,5</b>	<b>L</b>
C	Wainiha Bay	HI417823	wet	?	?	?	?	?	?	?		3	
C	Wai'ohai Beach	HI392082	dry	?	?	?	?	?	?	?		3	
E	Waioli Stream Estuary	HIW00163	<b>na</b>	?	?	?	?	T	?	?		3,4a	TMDL approved 2008 (Turb)
E	Waipa Stream Estuary	HIW00164	<b>na</b>	?	?	?	?	T	?	?		3,4a	TMDL approved 2008 (Turb)
C	Waipouli Beach	HI682678	wet	A	?	?	?	?	?	?		2,3	



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Ahuimanu	Stream	EN	3-2-07.03	Wet	?	?	?	?	V	?		3,5	L
Ahuimanu	Stream	EN	3-2-07.03	Dry	?	?	?	?	V	?		3,5	L
Aiea	Stream	EN	3-4-03	Wet	?	N1c	N1c	?	V	?	Trash	3,5	H (IP)
Aiea	Stream	EN	3-4-03	Dry	?	N1c	N1c	?	V	?	Trash	3,5	H (IP)
Anahulu	Estuary	EE	3-6-08-E		?	V	V	V	V	?		3,5	L
Halawa	Stream	EN	3-4-02		?	V	V	V	V	?		3,5	H (IP)
Heeia	Stream	EN	3-2-08	Dry	?	N	N	A	A	A		2,3,5	L
Heeia	Stream	EN	3-2-08	Wet	?	A	N	A	N	A		2,3,5	L
Helemano	Stream	EN	3-6-07.02		?	V	V	V	V	?		3,5	L
Honouliuli	Stream	EN	3-4-11		?	?	?	?	?	?		3	
Kaaawa	Stream	EN	3-1-19		?	V	V	V	V	?		3,5	L
Kaalaea	Stream	EN	3-2-05	Dry	?	N	N	A	N	A		2,3,5	L
Kaalaea	Stream	EN	3-2-05	Wet	?	N	N	A	A	A		2,3,5	L
Kaelepulu	Stream	EN	3-2-14		?	V	V	V	V	?		3,5	H (IP)
Kahaluu	Estuary	EE	3-2-07-E		?	?	?	?	V	?		3,5	L
Kahaluu	Stream	EN	3-2-07.02	Dry	?	A	N	A	N	A		2,3,5	L
Kahaluu	Stream	EN	3-2-07.02	Wet	?	?	?	?	V	?		3,5	L
Kahana	Stream	EN	3-1-18	Dry	?	A	N	A	N	A		2,3,5	M
Kahana	Stream	EN	3-1-18	Wet	?	Ac	Ac	Ac	Ac	Ac		2,3	
Kahawainui	Stream	EN	3-1-07		?	V	V	V	V	?		3,5	L
Kaipapau	Stream	EN	3-1-10		?	?	?	?	?	?		3	
Kalauao	Stream	EN	3-4-04-01	Dry	?	N1	N1	?	N	?		3,5	H (IP)
Kalauao	Stream	EN	3-4-04-01	Wet	?	N	N	?	Ac	?		2,3,5	H (IP)
Kalihi	Stream	EN	3-3-11	Dry	?	?	N	A	N	A	Trash	2,3,5	H
Kalihi	Stream	EN	3-3-11	Wet	?	N	N	A	A	A	Trash	2,3,5	H

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Kaluanui	Stream	EN	3-1-13		?	?	?	?	?	?		3	
Kamooalii (Trib to Kaneohe Stream)	Stream	Kamooalii Trib	3-2-10.01	Dry	?	T	T	T	T	T		3,4a	TMDLs approved 2010
Kamooalii (Trib to Kaneohe Stream)	Stream	Kamooalii Trib	3-2-10.01	Wet	?	T	T	T	T	T		3,4a	TMDLs approved 2010
Kaneohe	Stream	EN	3-2-10	Dry	?	T	T	T	T	T	Dieldrin	3,4a,5	M (nutrient, sediment TMDLs approved 2010)
Kaneohe	Stream	EN	3-2-10	Wet	?	T	T	T	T	T	Dieldrin	3,4a,5	M (nutrient, sediment TMDLs approved 2010)
Kapaa	Stream	EN	3-2-13-Kapaa		?	T	T	T	T	T	Metals; Lead	3,4a,5	M (nutrient & sediment TMDLs approved 2007)
Kapakahi	Stream	EN	3-4-Kapakahi	Wet	?	N	N	N	?	?	Trash	3,5	H (IP)
Kapakahi	Stream	EN	3-4-Kapakahi	Dry	?	?	?	?	V	?	Trash	3,5	H (IP)
Kapalama	Stream	EN	3-3-10		?	V	V	V	V	?	Trash	3,5	L
Kaukonahua	Stream	EN	3-6-06.02	Dry	?	N	N	A	N1	A		2,3,5	M
Kaukonahua	Stream	EN	3-6-06.02	Wet	?	N	N	A	N1	A		2,3,5	M
Kaupuni	Stream	EN	3-5-05		?	V	V	V	V	?	Trash	3,5	L
Kawa	Stream	EN	3-2-11		?	T	T	T	T	T		3,4a	TMDLs approved 2002, 2005

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Kawailoa	Stream	EN	3-6-08.01		?	V	V	V	V	?		3,5	L
Kawainui	Stream	EN	3-2-13		?	?	?	?	?	?		3	
Kawainui Marsh	Wetland	EW	3-2-13-W		?	?	?	?	?	?		3	
Kawela	Stream	EN	3-1-04		?	?	?	?	?	?		3	
Keaahala	Stream	EN	3-2-09	Dry	?	N	N	N	N	A	Trash	2,3,5	L
Keaahala	Stream	EN	3-2-09	Wet	?	N	N	A	A	A	Trash	2,3,5	L
Kiikii	Estuary	EE	3-6-06-E		?	?	?	?	?	?		3	
Koloa	Stream	EN	3-1-09	Both	?	?	?	?	?	?		3	
Makiki	Stream	EN	ALWS06	Dry	?	N	?	N	?	?		3,5	L
Manoa	Stream	EN	3-3-07.01		?	V	V	V	V	?	Dieldrin, Chlordane	3,5	L
Maunawili	Stream	EN	3-2-13.01		?	V	V	V	V	?	Trash	3,5	M
Moanalua	Stream	EN	3-3-12.01	Dry	?	Nc	Ac	Ac	N1	Ac	Trash	2,3,5	L
Moanalua	Stream	EN	3-3-12.01	Wet	?	Nc	Ac	Ac	Ac	Ac	Trash	2,3,5	L
N. Fork Kaukonahua	Stream	EN	3-6-06.02.2		?	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>		<b>3,4a</b>	<b>TMDLs approved 2010</b>
Nuuanu	Stream	EN	3-3-09	Dry	?	N	N	N	N	N	Trash, Dieldrin, Chlordane	3,5	M
Nuuanu	Stream	EN	3-3-09	Wet	?	N	N	A	N	A	Trash, Dieldrin, Chlordane	2,3,5	M
Opaepa	Stream	EN	3-6-07.01		?	V	V	V	V	?		3,5	L
Palolo	Stream	EN	3-3-07.01.1		?	?	?	?	?	?	Trash	3,5	L
Paukai	Estuary	EE	3-6-07-E		?	V	V	V	V	?		3,5	L
Poamoho	Stream	EN	3-6-06.01		?	V	V	V	V	?		3,5	M
Punaluu	Stream	EN	3-1-16	Dry	?	A	A	A	A	A		2,3	

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Punaluu	Stream	EN	3-1-16	Wet	?	A	Ac	A	A	A		2,3	
S. Fork Kaukonahua	Stream	EN	3-6-06.02.1		?	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>		<b>3,4a</b>	<b>TMDLs approved 2010</b>
Salt Lake	Lake	EL	3-3-12-SaltLake		?	?	?	?	N	?	Trash	3,5	L
Wahiawa Reservoir	Reservoir	ER	3-6-06.02-R		?	V	V	V	V	?		3,5	H (IP)
Waiahole	Stream	EN	3-2-04	Dry	?	A	N	N	A	A		2,3,5	L
Waiahole	Stream	EN	3-2-04	Wet	?	Ac	Nc	Ac	Ac	Ac		2,3,5	L
Waiawa	Stream	EN	3-4-06	Wet	?	A	A	A	V	A	Trash	2,3,5	H (IP)
Waiawa	Stream	EN	3-4-06	Dry	?	V	V	V	V	?	Trash	3,5	H (IP)
Waihee	Stream	EN	3-2-07.01	Wet	?	V	V	V	?	?		3,5	L
Waihee	Stream	EN	3-2-07.01	Dry	?	N	N	A	N	A		2,3,5	L
Waikane	Stream	EN	3-2-02	Dry	?	A	N	A	A	A		2,3,5	L
Waikane	Stream	EN	3-2-02	Wet	?	Ac	Nc	Ac	Ac	Ac		2,3,5	L
Waikele	Stream	EN	3-4-10	Dry	?	N1	N1	?	?	?		3,5	H (IP)
Waikele	Stream	EN	3-4-10	Wet	?	N1	N1	?	N	?		3,5	H (IP)
Waialele	Stream	EN	3-1-08	Wet	?	?	?	?	N1	?		3,5	L
Waimalu	Stream	EN	3-4-05	Wet	?	?	?	?	N1	?		3,5	H (IP)
Waimanalo	Stream	EN	3-2-15		?	T	T	T	T	?		3,4a	TMDLs approved 2001
Waimano	Stream	EN	3-4-06.01		?	?	?	?	V	?		3,5	H (IP)
Waiola	Stream	EN	3-2-07.04	Wet	?	?	?	?	V	?		3,5	L
Waiola	Stream	EN	3-2-07.04	Dry	?	?	?	?	V	?		3,5	L

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C	Ala Moana Beach (Center)	HIW00001	wet	A	A	A	A	N	N	A		2,5	L
C	Ala Moana Beach (Diamond Hd)	HIW00002	wet	A	A	A	A	?	N	N		2,3,5	L
C	Ala Moana Beach (Ewa)	HI473893	wet	A	?	?	?	?	?	?		2,3	
B	Ala Wai Boat Harbor (Ala Moana Bridge stn)	HIW00125	wet	N	N	?	N	N	N	?		3,5	L
E	Ala Wai Canal and Boat Harbor	HIW00050	na	Y	T	T	T	T	?	?	Nutrients, pathogens, metals, suspd solids (T); organochlorine pesticides, lead	3,4a,5	TMDLs completed for canal nutrients. L – others
E	Ala Wai Canal and Harbor (Canal-Dmd Hd stn)	HIW00085	na	N	N	?	N	N	N	?		3,5	L
E	Ala Wai Canal and Harbor (Manoa & Palolo KHS stn)	HIW00036	na	?	N	?	N	N	N	?		3,5	L
E	Ala Wai Canal and Harbor (Manoa strm fork stn)	HIW00035	na	?	N	?	?	N	?	?	fecal	3,5	L
E	Ala Wai Canal and Harbor (Manoa-Palolo strm mouth stn)	HIW00087	na	?	N	?	N	N	N	?		3,5	L
E	Ala Wai Canal and Harbor (McCully Bridge stn)	HIW00086	na	N	?	?	?	?	?	?		3,5	L
E	Ala Wai Canal and Harbor (Palolo strm fork)	HIW00034	na	?	N	?	?	N	?	?	fecal	3,5	L
C	Aukai Beach Co. Park	HI145110	dry	A	?	?	?	?	?	?		2,3	
C	Banzai Beach	HI908378	dry	?	?	?	?	?	?	?		3	
C	Barbers Point Beach Co. Pk.	HI593573	wet	?	?	?	?	?	?	?		3	
B	Barbers Point Harbor	HIW00088	dry	?	?	?	?	?	?	?		3	
C	Bellows Field Beach Co. Pk. (N. runway)	HI798011	wet	N	?	?	?	?	?	?		3,5	M
C	Bellows Field Beach Co. Pk. (Waimanalo strm mouth)	HIW00081	wet	N	?	?	?	?	?	?		3,5	M
C	Camp Harold Erdman	HI309544	dry	?	?	?	?	?	?	?		3	
C	<b>Campbell Industrial</b>	<b>HIW00187</b>	<b>dry</b>	<b>?</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>		<b>2,3</b>	
C	Chun's Reef	HI950962	wet	A	?	?	?	?	?	?		2,3	
C	Diamond Head	<b>HI544313</b>	dry	A	?	?	?	?	?	?		2,3	

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C	Ehukai Beach Co. Pk.	HI531535	dry	A	?	?	?	?	?	?		2,3	
<b>C</b>	<b>Ewa (open coastal)</b>	<b>HIW00189</b>	<b>wet</b>	<b>N</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>		<b>4b</b>	
C	Ewa Beach	HI767464	wet	A	?	?	?	?	?	?		2,3	
C	Ewa Beach Park	HI319095	wet	A	A	A	A	N	N	N		2,5	L
C	Fort DeRussy Beach	HI045715	wet	A	?	?	?	?	?	?		2,3	
C	Fort Hase Beach	HI410735	dry	A	?	?	?	?	?	?		2,3	
C	Gray's Beach	HI941499	wet	A	N	?	?	N	N	?		2,3,5	L
B	Haleiwa Beach Park	HI994019	wet	A	N	?	N	?	N	?		2,3,5	L
B	Hale'iwa Boat Harbor	HIW00127	wet	?	?	?	?	?	?	?		3	
C	Halona Cove	HI132946	dry	A	?	?	?	?	?	?		2,3	
<b>P</b>	<b>Hammer Point</b>	<b>HIW00188</b>	<b>na</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	Hanaka'ilio Beach	HI646411	dry	?	?	?	?	?	?	?		3	
B	Hanauma Bay	HIW00058	dry	?	?	?	?	?	?	?	trash	3,5	M
B	Hanauma Bay (Beach)	HIW00096	dry	A	A	N	A	N	A	N		2,5	M
<b>O</b>	Hanauma Bay (oceanic)	HIW00017	<b>na</b>	?	?	N	?	?	N	N		3,5	M
C	Hauula Beach Park	HI854492	dry	A	?	?	?	?	?	?		2,3	
B	Hawaii Kai station	HIW00117	dry	A	?	?	?	?	?	?		2,3	
C	Hawaiian Electric Beach Park	HI628972	dry	A	?	?	?	?	?	?		2,3	
B	Heeia Kea Small Boat Harbor	HIW00097	wet	A	N	?	?	?	N	?		2,3,5	L
B	Honolulu Harbor	HIW00100	wet	?	?	?	?	?	?	?		3	
B	Honolulu Harbor & Shore area-Honolulu Waterfront-Aloha Tower	HIW00061	wet	?	?	<b>A</b>	?	<b>A</b>	?	<b>N</b>	Trash	<b>2,3,5</b>	L
B	Honolulu Harbor & Shore area-Kewalo Basin	HIW00051	wet	?	Y	Y	Y	N	?	?	Nutrients, suspd. solids (Y); trash	3,5	L

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B	Honolulu Harbor-nearshore waters to 30' from 1 mile NW of Honolulu Harbor/Sand Island channel to Waikiki Beach	HIW00049	wet	Y	Y	Y	Y	N	?	?	Nutrients, pathogens, metals, suspd solids (Y)	3,5	L
C	Ihilani Honu Lagoon	HI815093	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Ihilani Kohola Lagoon	HI515191	dry	A	?	?	?	?	?	?		2,3	
C	Ihilani Naia Lagoon	HI685981	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Ihilani Ulua Lagoon	HI550240	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
<b>P</b>	Iroquois Pt.	HI412839	<b>na</b>	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Kaaawa Beach Park	HI580360	wet	A	?	?	?	?	?	?		2,3	
C	Ka'alawai Beach	HI253930	dry	<b>N</b>	?	?	?	?	?	?		<b>3,5</b>	<b>L</b>
E	Kaelepulu Stream-Kailua Bch	HIW00182	na	N	N	?	N	N	N	?		3,5	H (IP)
C	Ka'ena Pt.	HI645485	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Kahala Beach Shoreline	HI514582	dry	A	?	?	?	?	?	?		2,3	
C	Kahala Hilton Beach	HI173325	dry	A	?	?	?	?	?	?		2,3	
B	Kahana Bay Park	HIW00102	wet	N	N	?	N	N	?	?		3,5	M
B	Kahana Bay-nearshore waters to 30' from Mahie Point to a point one mile north of Kahana Bay station	HIW00062	wet	?	?	?	?	N	?	?	Suspd. solids (Y)	3,5	M
B	Kahana Park	HIW00103	wet	N	?	?	?	?	?	?		3,5	M
C	Kahanamoku Beach	HI366432	wet	A	A	A	A	?	N	A		2,3,5	L
C	Kahanamoku Lagoon	HIW00003	wet	N	?	?	?	?	?	?		3,5	L
C	Kahe Pt. Beach Co. Pk.	HI548986	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
<b>C</b>	Kahuku Golf Course	HI989341	<b>dry</b>	?	?	?	?	?	?	?		3	
B	Kaiaka Bay	HIW00106	wet	<b>N</b>	N	N	?	N	N	N		3,5	L
C	Kaihalulu Beach	HI668562	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
<b>C</b>	<b>Kailua Bay (open coastal)</b>	<b>HIW00194</b>	<b>dry</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>		<b>2</b>	
C	Kailua Beach Park	HI482719	wet	A	A	A	A	N	N	N		2,5	L

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C	Kaiona Beach	HI234342	dry	A	?	?	?	?	?	?		2,3	
C	Kaipapa'u Beach	HI787959	dry	A	?	?	?	?	?	?		2,3	
C	Kakaako Waterfront	HI302297	wet	A	?	?	?	?	?	?		2,3	
C	Kalae oio Beach Park	HI860454	wet	?	?	?	?	?	?	?		3	
C	Kalama Beach	HI071892	dry	A	?	?	?	?	?	?		2,3	
C	Kaloko (Queens) Beach	HI353985	dry	A	?	?	?	?	?	?		2,3	
<b>C</b>	<b>Kaluahole Beach</b>	<b>HI391176</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	Kaluauui Beach	HI410842	dry	?	?	?	?	?	?	?		3	
C	Kanenelu Beach	HI196120	wet	A	?	?	?	?	?	?		2,3	
B	Kaneohe Bay (Beach Park)	HIW00004	wet	?	N	?	N	N	N	?		3,5	L
B	Kaneohe Bay (Central Region)	HIW00013	wet	?	N	N	?	N	?	N		3,5	L
B	Kaneohe Bay (Kokokahi Pier)	HIW00005	wet	N	N	?	N	N	N	?		3,5	L
B	Kaneohe Bay (Northern Region)	HIW00012	wet	?	N	N	?	N	?	N		3,5	L
B	Kaneohe Bay (Southern Region)	HIW00011	wet	N	N	N	?	N	?	N		3,5	L
<b>B</b>	<b>Kaneohe Bay at Kualoa</b>	<b>HI272280</b>	<b>wet</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
B	Kaneohe Bay-nearshore waters at mouths of Kaneohe and Kawa streams	HIW00054	wet	?	Y	Y	Y	N	?	?	nutrients, susp.solids (Y)	3,5	L
C	Kapaeloa Beach	HI904851	wet	?	?	?	?	?	?	?		3	
C	Kapi'olani Park	HI733929	dry	A	?	?	?	?	?	?		2,3	
<b>C</b>	<b>Kapoho Point</b>	<b>HIW00192</b>	<b>dry</b>	<b>N</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3,5</b>	<b>L</b>
C	Kaunala Beach	HI622160	dry	A	?	?	?	?	?	?		2,3	
C	Kaupo Beach Co. Park	HI791127	dry	A	?	?	?	?	?	?		2,3	
C	Kawaiku'i Beach Park	HI304424	dry	A	?	?	?	?	?	?		2,3	
C	Kawailoa Beach	HI312049	wet	?	?	?	?	?	?	?		3	
C	Kawela Bay	HI698581	dry	A	N	?	N	N	N	?		2,3,5	L



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C	Kea'au Beach Co. Park	HI730738	dry	<b>A</b>	?	?	?	?	?	?		2,3	
C	Kealia Beach	HI612698	dry	<b>A</b>	?	?	?	?	?	?		2,3	
B	Keehi Lagoon	HIW00009	wet	<b>N</b>	?	?	?	?	?	?		3,5	<b>L</b>
B	Keehi Lagoon (Point X)	HIW00010	wet	N	N	?	N	?	N	?		3,5	L
B	Keehi Lagoon waters and nearshore waters to 30' from lagoon mouth to Pearl Harbor	HIW00055	wet	?	Y	Y	Y	N	?	?	nutrients, susp. solids (Y)	3,5	L
C	Kewalo Basin	HIW00126	wet	?	N	?	N	N	N	?		3,5	L
B	Ko Olina	HIW00089	dry	?	?	?	?	?	?	?		3	
<b>B</b>	<b>Koke'e Beach Park</b>	<b>HI147970</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
<b>B</b>	<b>Koko Kai Beach Park</b>	<b>HI467112</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	Kokololio Beach	<b>HI767708</b>	dry	A	?	?	?	?	?	?		2,3	
C	Kualoa Co. Regional Park	HI848207	wet	A	N	N	A	?	N	N		2,3,5	L
C	Kualoa Sugar Mill Beach	HI484535	wet	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Kuhio Beach	HI681782	<b>dry</b>	<b>A</b>	A	N	A	?	<b>N</b>	N		2,3,5	L
C	Kuhio Beach (Public Bath)	HI851298	<b>dry</b>	A	A	A	A	N	N	<b>N</b>		2,5	L
<b>C</b>	<b>Kuilei Cliffs</b>	<b>HI431723</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	Kuilei Cliffs Beach Park	HIW00064	dry	?	?	?	?	?	?	?		3	
C	Kuilima Cove	HI412224	dry	A	?	?	?	?	?	?		2,3	
<b>B</b>	<b>Kuli'ou'ou</b>	<b>HI360513</b>	<b>dry</b>	<b>N</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3,5</b>	<b>L</b>
<b>B</b>	<b>Laenani Beach Co. Park</b>	<b>HI930562</b>	<b>wet</b>	<b>N</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3,5</b>	<b>L</b>
C	Laie Bay	HI472847	dry	A	N	?	N	N	N	?		2,3,5	L
C	Laniakea Beach	HI183312	wet	A	?	?	?	?	?	?		2,3	
C	Lanikai Beach	HI596989	wet	A	?	?	?	?	?	?		2,3	
<b>C</b>	<b>Lanikai Boat Ramp</b>	<b>HIW00193</b>	<b>wet</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	Laniloa Peninsula (Beach)	HI201901	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	

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C	Laukinui Beach	HI739818	dry	A	?	?	?	?	?	?		2,3	
C	Lualualei Beach Co. Park	HI800877	dry	A	?	?	?	?	?	?		2,3	
C	Magic Island	HI529142	wet	A	?	?	?	?	?	?		2,3	
C	Ma'ili Beach Park	HI627464	dry	A	?	?	?	?	?	?		2,3	
C	Maipalaoa Beach	HI280966	dry	A	?	?	?	?	?	?		2,3	
C	Makaha Beach	HI632106	dry	A	A	N	A	N	N	N		2,5	L
C	Makao Beach	HI147212	dry	A	?	?	?	?	?	?		2,3	
C	Makapuu Beach	HI723399	dry	A	?	?	?	?	?	?		2,3	
C	Makaua Beach Co. Park	HIW00066	wet	?	?	?	?	?	?	?		3	
C	<b>Makaua Beach Co. Park</b>	<b>HI542752</b>	<b>wet</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3</b>	
C	Makua Beach	HI915061	dry	A	?	?	?	?	?	?		2,3	
C	Malaekahana State Park	HI137325	dry	A	?	?	?	?	?	?		2,3	
C	<b>Mamala Bay (Ft. Kam offshore)</b>	<b>HIW00190</b>	<b>wet</b>	<b>?</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>		<b>2,3</b>	
O	Mamala Bay (Oceanic)	HIW00015	na	?	N	?	?	?	N	?		3,5	L
C	Mamala Bay (Sand Isl. Offshore)	HIW00014	wet	A	A	A	A	A	A	A		2	
C	Manner's Beach	HI717740	dry	A	?	?	?	?	?	?		2,3	
C	Mauna Lahilahi Beach	HI639551	dry	A	?	?	?	?	?	?		2,3	
C	Maunalua Bay	HIW00016	dry	?	N	N	?	?	N	N		3,5	L
B	<b>Maunalua Beach Park</b>	<b>HI423413</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	<b>Mikilua Beach Park</b>	<b>HIW00186</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	Mokule'ia Beach	HI908786	dry	?	?	?	?	?	?	?		3	
C	Mokule'ia Beach Co. Park	HI220308	dry	A	?	?	?	?	?	?		2,3	
C	Nanaikapono Beach	HI504242	dry	A	?	?	?	?	?	?		2,3	
C	Nanakuli Beach Park	HI467413	dry	A	?	?	?	?	?	?		2,3	
C	Nimitz Beach	HI682233	wet	A	?	?	?	?	?	?		2,3	

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C	Niu	HI157026	dry	?	?	?	?	?	?	?		3	
C	North Beach	HI426406	dry	A	?	?	?	?	?	?		2,3	
C	Ocean Pointe C	HIW00132	wet	?	N	N	A	N	N	N		2,3,5	L
C	Ocean Pointe Control	HIW00129	wet	?	N	N	A	N	N	A		2,3,5	L
C	Ocean Pointe E	HIW00130	wet	?	N	N	A	N	N	A		2,3,5	L
C	Ocean Pointe W	HIW00131	wet	?	N	N	A	N	N	A		2,3,5	L
C	Ohikilolo Beach (Barking Sands)	HI731423	dry	A	?	?	?	?	?	?		2,3	
C	Oneawa Beach	HI952205	dry	A	N	?	N	N	N	?		2,3,5	L
C	Oneula Beach Park	HI825419	wet	A	?	?	?	?	?	?		2,3	
C	Outrigger Canoe Club Beach	HI943325	dry	A	?	?	?	?	?	?		2,3	
C	Pahipahi'alua Beach	HI575467	dry	A	?	?	?	?	?	?		2,3	
C	Paiko Lagoon	HI598745	dry	?	?	?	?	?	?	?		3	
B	Paiko Peninsula to Koko Hd	HIW00118	dry	?	?	?	?	?	?	?		3	
C	Papa'iloa Beach	HI478834	wet	A	?	?	?	?	?	?		2,3	
C	Papaoneone Beach	HI990625	dry	A	?	?	?	?	?	?		2,3	
P	Pearl Harbor	HIW00006	na	?	N	?	N	A	N	?		2,3,5	H
P	Pearl Harbor-Harbor waters and nearshore waters to 30' from Keehi Lagoon to Oneula Beach	HIW00119	na	?	Y	Y	Y	N	?	?	nutrients, susp. Solids (Y); PCBs, fish consumption advisory	3,5	H
C	Pipeline, The	HI188157	dry	A	?	?	?	?	?	?		2,3	
C	Point Panic	HI197311	wet	A	?	?	?	?	?	?		2,3	
B	Pokai Bay	HIW00007	dry	A	A	N	A	?	N	N		2,3,5	L
O	Pokai Bay (oceanic)	HIW00019	na	?	N	?	?	?	N	?		3,5	L
C	Pokai Bay (open coastal)	HIW00018	dry	A	A	A	A	N	A	A		2,5	L
C	Pounders Beach	HI587568	dry	A	?	?	?	?	?	?		2,3	

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C	Punaluu Beach Park	HI148836	wet	<b>N</b>	?	?	?	?	?	?		3,5	<b>L</b>
C	Pupukea Beach Co. Park	HI193495	wet	<b>A</b>	?	?	?	?	?	?		2,3	
C	Pu'uiki	HI437024	dry	<b>A</b>	?	?	?	?	?	?		2,3	
C	Pu'uohulu Beach	HI960731	dry	<b>A</b>	?	?	?	?	?	?		2,3	
C	Queen's Surf Beach Park	HIW00069	<b>dry</b>	?	?	?	?	?	?	?		3	
C	Royal-Moana Beach	HI898947	wet	A	A	N	A	?	N	N		2,3,5	L
C	Sand Island	HI714359	wet	A	<b>A</b>	<b>N</b>	<b>A</b>	N	N	<b>A</b>		2,5	L
C	Sand Island Pt.#3	HIW00181	wet	?	N	?	?	N	N	?		3,5	L
C	Sandy Beach	HI776760	dry	A	N	N	A	N	N	N		2,5	L
<b>C</b>	<b>Sandy Beach (open coastal)</b>	<b>HIW00191</b>	<b>dry</b>	<b>?</b>	<b>N</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>?</b>	<b>A</b>		<b>2,3,5</b>	<b>L</b>
C	Sans Souci	HI617815	<b>dry</b>	A	<b>N</b>	N	A	?	<b>N</b>	N		2,3,5	L
C	Sunset Beach	HI860544	dry	A	A	N	A	?	N	N		2,3,5	L
C	Swanzy Beach Co. Park	HI151343	wet	<b>A</b>	?	?	?	?	?	?		2,3	
C	Tongg's	HI248913	<b>dry</b>	A	?	?	?	?	?	?		2,3	
C	Turtle Bay	HI776670	dry	<b>A</b>	?	?	?	?	?	?		2,3	
C	Ulehawa Beach	HI784010	dry	A	?	?	?	?	?	?		2,3	
C	Wai'ala'e Beach Co. Park	HI997368	dry	A	?	?	?	?	?	?		2,3	
C	Waiale'e	HI109657	dry	<b>A</b>	?	?	?	?	?	?		2,3	
B	<b>Waialua Bay</b>	HI451176	wet	A	?	?	?	?	?	?		2,3	
B	Waialua/Kaiaka Bays Nearshore waters to 60' from Puaena Point to a point 1.5 miles W of Kaiaka Pt.	HIW00083	<b>wet</b>	?	Y	Y	Y	N	?	?	nutrients, susp. Solids (Y)	3,5	L
B	Waianae Boat Harbor	HIW00124	dry	?	?	?	?	?	?	?		3	
C	Wai'anae Regional Park	HI668527	dry	?	?	?	?	?	?	?		3	
C	Waikiki Beach Center	HI244505	wet	A	?	?	?	?	?	?		2,3	
C	Wailupe Beach Park	HI432476	dry	?	?	?	?	?	?	?		3	

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C	Waimanalo Bay St. Rec. Area (Park)	HIW00008	dry	A	?	?	?	?	?	?		2,3	
C	Waimanalo Bay station (Waimanalo Beach Co. Park North)	HIW00175	dry	A	?	?	?	?	?	?		2,3	
C	Waimanalo Beach Co. Park (South)	HIW00174	dry	A	N	N	A	?	N	N		2,3,5	M
C	Waimea Bay	HIW00128	wet	A	?	?	?	?	?	?		2,3	
C	War Memorial Natatorium	HI624259	<b>dry</b>	?	?	?	?	?	?	?		3	
C	Wawamalu Beach Park	HI329454	dry	A	?	?	?	?	?	?		2,3	
C	White Plains Beach	HI267023	wet	A	?	?	?	?	?	?		2,3	
C	Yokohama Bay	HI269028	dry	A	?	?	?	?	?	?		2,3	

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MOLOKAI Stream Waters													
Assessed Waterbody	Waterbody Type	Scope of Assessment	Geocode ID	Season	enterococci	Total N	NO3+NO2	Total P	TURB	TSS	Other Pollutants	Category	TMDL Priority
Honoulimaloo	Stream	EN	4-2-02		?	?	?	?	?	?		3	
Honouliwai	Stream	EN	4-2-03	Wet	?	?	?	?	Ac	?		2,3	
Kamalo	Stream	EN	4-2-14		?	?	?	?	?	?		3	
Pelekunu	Stream	EN	4-1-09	Dry	?	?	?	?	A	?		2,3	
Waialua	Stream	EN	4-2-04	Wet	?	A	A	A	A	A		2,3	
Waialua	Stream	EN	4-2-04	Dry	?	Ac	Ac	Ac	N1	Ac		2,3,5	L
Wailau	Stream	EN	4-1-15		?	?	?	?	?	?		3	

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MOLOKAI Marine Waters													
Waterbody Type	Scope of Assessment	Geocode ID	Wet/Dry Criteria	enterococci	Total N	NO3+NO2	Total P	TURB	chl-a	NH4	Other Pollutants	Category	TMDL Priority
C	Awahua Beach	HI702920	dry	?	?	?	?	?	?	?		3	
C	Fagans Beach	HI571680	dry	?	?	?	?	?	?	?		3	
C	Halawa Beach Park	HI928793	wet	?	?	?	?	?	?	?		3	
B	Hale O Lono Harbor	HIW00090	dry	?	?	?	?	?	?	?		3	
C	Halena Beach	HI417163	dry	?	?	?	?	?	?	?		3	
C	Honouli Malo'o	HI783671	dry	?	?	?	?	?	?	?		3	
C	Honouli Wai	HI376731	dry	?	?	?	?	?	?	?		3	
C	Iliopi'i Beach	HI681345	dry	?	?	?	?	?	?	?		3	
C	Kahalepohaku Beach	HI191374	dry	?	?	?	?	?	?	?		3	
C	Kakahai'a Beach Park	HI939514	dry	?	?	?	?	?	?	?		3	
C	Kamaka'ipo Beach	HI923737	dry	?	?	?	?	?	?	?		3	
C	Kanalukaha Beach	HI559049	dry	?	?	?	?	?	?	?		3	
C	Kapukahehu Beach	HI941577	dry	?	?	?	?	?	?	?		3	
C	Kapukuwahine Beach	HI565164	dry	?	?	?	?	?	?	?		3	
B	Kaunakakai Boat Harbor	HIW00109	dry	?	?	?	?	?	?	?		3	
B	Kaunakakai Harbor	HIW00110	dry	?	?	?	?	?	?	?		3	
C	Kaunala Beach	HI726225	dry	?	?	?	?	?	?	?		3	
C	Kaupoa Beach	HI481092	dry	?	?	?	?	?	?	?		3	
C	Kawa'aloa Bay	HI384043	dry	?	?	?	?	V	?	?		3,5	L
C	Kawakiunui	HI114962	dry	?	?	?	?	?	?	?		3	
C	Kepuhi Beach	HI287930	dry	?	?	?	?	?	?	?		3	
C	Kiowea Park (Kamehameha Coconut Grove)	HI206014	dry	?	?	?	?	?	?	?		3	
C	Kolo Wharf	HI928768	dry	?	?	?	?	?	?	?		3	
C	Lighthouse Beach	HI934213	dry	?	?	?	?	?	?	?		3	
C	Mo'omomi Beach	HI204811	dry	?	?	?	?	V	?	?		3,5	L
C	Murphy Beach Park	HI138494	dry	?	?	?	?	?	?	?		3	

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MOLOKAI Marine Waters													
Waterbody Type	Scope of Assessment	Geocode ID	Wet/Dry Criteria	enterococci	Total N	NO3+NO2	Total P	TURB	chl-a	NH4	Other Pollutants	Category	TMDL Priority
C	Oneali'i Beach Park	HI904462	dry	?	?	?	?	?	?	?		3	
C	Papaloa Beach	HI301825	dry	?	?	?	?	?	?	?		3	
C	Papohaku Beach	HI556777	dry	?	?	?	?	?	?	?		3	
C	Pelekunu	HI443237	wet	?	?	?	?	?	?	?		3	
C	Pohaku Mauiuli Beach	HI268134	dry	?	?	?	?	?	?	?		3	
C	Po'olau Beach	HI454004	dry	?	?	?	?	?	?	?		3	
C	Puko'o	HI665969	dry	?	?	?	?	?	?	?		3	
C	Sandy Beach	HI329518	dry	?	?	?	?	?	?	?		3	
C	South Molokai Coast-nearshore waters to 18' from SW point-Waialua	HIW00052	<b>dry</b>	?	Y	Y	Y	Y	?	?	nutrients, suspd. Solids (Y)	3,5	L
C	Wailau	HI603285	wet	?	?	?	?	?	?	?		3	



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LANAI Marine Waters													
Waterbody Type	Scope of Assessment	Geocode ID	Wet/Dry Criteria	enterococci	Total N	NO3+NO2	Total P	TURB	chl-a	NH4	Other Pollutants	Category	TMDL Priority
C	Awehi	HIW00134	dry	?	N	A	A	N	N	A		2,3,5	L
C	Halepalaoa Beach	HI297944	dry	?	?	?	?	?	?	?		3	
C	Hulupoe Bay	HIW00177	dry	?	N	A	A	A	A	A		2,3,5	L
C	Kahemano Beach	HI801428	dry	?	A	A	A	N	A	N		2,3,5	L
C	Kaluakoi Point to Huawai Bay	HIW00135	dry	?	N	A	A	A	A	A		2,3,5	L
B	Kaumalapau Harbor	HIW00108	dry	?	?	?	?	?	?	?		3	
C	Kaunolu Bay	HI923988	dry	?	?	?	?	?	?	?		3	
C	Kawaiu Gulch-Makole Pt.	HIW00133	dry	?	A	A	A	A	N	A		2,3,5	L
C	Keomuku Beach	HI854690	dry	?	?	?	?	?	?	?		3	
C	Lopa Beach	HI735036	dry	?	?	?	?	?	?	?		3	
C	Mahanalua	HIW00136	dry	?	N	A	A	N	N	A		2,3,5	L
C	Manele Bay Beach	HIW00178	dry	?	A	A	A	A	A	A		2,3	
B	Manele Boat Harbor	HIW00179	dry	?	A	A	A	N	N	A		2,3,5	L
C	Naha Beach	HI225961	dry	?	?	?	?	?	?	?		3	
C	Polihua Beach	HI845453	dry	?	?	?	?	?	?	?		3	
B	Puu Pehe Beach	HIW00180	dry	?	?	?	?	?	?	?		3	
C	Shipwreck Beach	HI362906	dry	?	?	?	?	?	?	?		3	

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MAUI Stream Waters													
Assessed Waterbody	Waterbody Type	Scope of Assessment	Geocode ID	Season	enterococci	Total N	NO3+NO2	Total P	TURB	TSS	Other Pollutants	Category	TMDL Priority
Alelele	Stream	EN	6-5-20		?	?	?	?	?	?		3	
E. Wailuaiki	Stream	EN	6-4-16		?	?	?	?	?	?		3	
Haipuaena	Stream	EN	6-4-07		?	?	?	?	?	?		3	
Hanawi	Stream	EN	6-4-22		?	?	?	?	?	?		3	
Hanehoi	Stream	En	6-3-11		?	?	?	?	?	?		3	
Hawawana	Stream	EN	6-3-13		?	?	?	?	?	?		3	
Hoalua	Stream	EN	6-3-12		?	?	?	?	?	?		3	
Honokohau	Stream	EN	6-1-11	Dry	?	A	A	A	A	A		2,3	
Honokohau	Stream	EN	6-1-11	Wet	?	Ac	Ac	Ac	A	Ac		2,3	
Honokowai	Stream	EN	6-1-07		?	?	?	?	V	?		3,5	M
Honolua	Stream	EN	6-1-10		?	?	?	?	?	?		3	
Honomanu	Stream	EN	6-4-09		?	?	?	?	?	?		3	
Honopou	Stream	EN	6-3-08	Wet	?	?	?	?	A	?		2,3	
Hoolawa	Stream	EN	6-3-09		?	?	?	?	?	?		3	
Iao	Stream	EN	6-2-09		?	?	?	?	V	?	Trash	3,5	M
Kaaiea	Stream	EN	6-4-02		?	?	?	?	?	?		3	
Kahakuloa	Stream	EN	6-2-03	Dry	?	A	A	A	A	A		2,3	
Kahakuloa	Stream	EN	6-2-03	Wet	?	?	?	?	A	?		2,3	
Kahana	Stream	EN	6-1-08		?	?	?	?	V	?		3,5	M
Kahoma	Stream	EN	6-1-05		?	?	?	?	V	?		3,5	M
Kailua	Stream	EN	6-3-14		?	?	?	?	?	?		3	
Kakipi	Stream	EN	6-3-07		?	?	?	?	?	?		3	
Kauaula	Stream	EN	6-1-04		?	?	?	?	?	?		3	
Kaupakulua	Stream	EN	6-3-03		?	?	?	?	?	?		3	
Kolea	Stream	EN	6-4-03		?	?	?	?	?	?		3	

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MAUI Stream Waters													
Assessed Waterbody	Waterbody Type	Scope of Assessment	Geocode ID	Season	enterococci	Total N	NO3+NO2	Total P	TURB	TSS	Other Pollutants	Category	TMDL Priority
Kopiliula	Stream	EN	6-4-17		?	?	?	?	?	?		3	
Kuaiaha	Stream	EN	6-3-02		?	?	?	?	?	?		3	
Launiupoko	Stream	EN	6-1-03		?	?	?	?	?	?		3	
Makamakaole	Stream	EN	6-2-06	Dry	?	A	A	A	N	A		2,3,5	L
Makamakaole	Stream	EN	6-2-06	Wet	?	A	A	A	A	A		2,3	
Maliko	Stream	EN	6-3-01	Wet	?	?	?	?	N1	?		3,5	L
Manawaiiao	Stream	EN	6-3-04		?	?	?	?	?	?		3	
Nuaailua	Stream	EN	6-4-10		?	?	?	?	?	?		3	
Oheo	Stream	EN	6-5-13	Dry	?	A	A	A	Ac	A		2,3	
Oheo	Stream	EN	6-5-13	Wet	?	Ac	Ac	Ac	Ac	Ac		2,3	
Ohia	Stream	EN	6-4-12		?	V	V	V	V	?	Trash	3,5	L
Olowalu	Stream	EN	6-1-02		?	?	?	?	?	?		3	
Oopuola	Stream	EN	6-4-01		?	?	?	?	?	?		3	
Piinaau	Stream	EN	6-4-11		?	?	?	?	?	?		3	
Punalau	Stream	EN	6-4-08		?	?	?	?	?	?		3	
Puohokamoa	Stream	EN	6-4-06		?	?	?	?	?	?		3	
Uaoa	Stream	EN	6-3-05		?	?	?	?	?	?		3	
Ukumehame	Stream	EN	6-1-01	Dry	?	A	N	A	A	A		2,3,5	L
Ukumehame	Stream	EN	6-1-01	Wet	?	Ac	Ac	Ac	A	Ac		2,3	
W. Wailuaiki	Stream	EN	6-4-15		?	?	?	?	?	?		3	
Waiakamilo	Stream	EN	6-4-13		?	?	?	?	?	?		3	
Waiehu	Stream	EN	6-2-08		?	?	?	?	?	?		3	
Waihee	Stream	EN	6-2-07	Dry	?	A	A	A	A	A		2,3	
Waihee	Stream	EN	6-2-07	Wet	?	V	V	V	A	Ac		2,3,5	L
Waihikuli	Stream	EN	6-1-06		?	?	?	?	?	?		3	

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MAUI Stream Waters													
Assessed Waterbody	Waterbody Type	Scope of Assessment	Geocode ID	Season	enterococci	Total N	NO3+NO2	Total P	TURB	TSS	Other Pollutants	Category	TMDL Priority
Waikamoi	Stream	EN	6-4-04		?	?	?	?	?	?		3	
Waikapu	Stream	EN	6-2-10	Dry	?	Ac	?	Ac	Nc	Ac		2,3,5	L
Waikapu	Stream	EN	6-2-10	Wet	?	Ac	Ac	Ac	Ac	Ac		2,3	
Waiolai	Stream	EN	6-2-05		?	?	?	?	?	?		3	
Waipio	Stream	EN	6-3-10	Wet	?	?	?	?	N1	?		3,5	L

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MAUI Marine Waters													
Waterbody Type	Scope of Assessment	Geocode ID	Wet/Dry Criteria	enterococci	Total N	NO3+NO2	Total P	TURB	chl-a	NH4	Other Pollutants	Category	TMDL Priority
<b>C</b>	Ahihi-Kina'u Natural Area Reserve	HIW00084	dry	?	?	?	?	?	?	?		3	
C	Alaeloa Beach	HI616569	dry	?	?	?	?	?	?	?		3	
C	Awalua Beach	HI839739	dry	?	?	?	?	?	?	?		3	
C	Father Jules Papa	HI525524	dry	?	?	?	?	?	?	?		3	
C	Fleming Beach North	HI253548	dry	A	?	?	?	N	N	?		2,3,5	M
C	H.A. Baldwin Beach Co. Pk.	HI846900	dry	A	?	?	?	N	?	?		2,3,5	L
C	Hamoia	HI287670	dry	?	?	?	?	?	?	?		3	
C	Hana Bay	HI996835	dry	?	?	?	?	?	?	?		3	
C	Hanaka'o'o Beach Co. Pk.	HI797917	dry	<b>A</b>	<b>A</b>	N	<b>N</b>	N	<b>N</b>	<b>N</b>		<b>2,5</b>	M
C	Hanaka'o'o station*	HIW00165	dry	?	?	N	?	N	?	?		3,5	M
<b>C</b>	<b>Hata's</b>	<b>HI553820</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	Honoheana Bay	HI229021	dry	?	?	?	?	?	?	?		3	
C	Honokohau Bay	HI432902	dry	?	?	?	?	?	?	?		3	
C	Honokowai Beach Co. Pk.	HI412391	dry	<b>A</b>	<b>A</b>	<b>N</b>	<b>A</b>	N	N	<b>N</b>		<b>2,5</b>	M
C	Honokowai Pt. to Kaanapali	HIW00139	dry	?	N	A	A	A	A	N		2,3,5	M
C	Honolua Bay	HI280286	dry	<b>A</b>	<b>N</b>	<b>N</b>	<b>N</b>	?	<b>N</b>	<b>N</b>		<b>2,3,5</b>	<b>L</b>
C	Honomanu Bay	HI985873	wet	N	?	?	?	?	?	?		3,5	L
C	Ho'okipa Beach Co. Pk.	HIW00024	dry	A	?	?	?	N	?	?		2,3,5	L
C	H-Poko Papa	HI901232	dry	?	?	?	?	?	?	?		3	
C	Huakini Bay	HI385800	dry	?	?	?	?	?	?	?		3	
C	Ka'anapali (Kahekili Beach)	HI643627	dry	A	<b>A</b>	<b>N</b>	<b>A</b>	N	<b>A</b>	<b>N</b>		2,5	M
C	Ka'anapali (Sheraton Kaanapali Shoreline)	HIW00022	dry	<b>A</b>	?	?	?	N	N	?		<b>2,3,5</b>	M
C	Kahana (Mahinahina Condo Shoreline)	HI160433	dry	<b>A</b>	<b>N</b>	<b>N</b>	N	N	N	<b>N</b>		<b>2,5</b>	M
<b>C</b>	<b>Kahului Bay</b>	<b>HIW00195</b>	<b>dry</b>	<b>?</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>?</b>	<b>N</b>	<b>N</b>		<b>3,5</b>	<b>L</b>
B	Kahului Harbor	HIW00104	dry	A	?	?	?	N	?	?		2,3,5	L
B	Kahului Harbor (Bay)	HIW00105	dry	?	N	N	?	N	N	N		3,5	L

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MAUI Marine Waters													
Waterbody Type	Scope of Assessment	Geocode ID	Wet/Dry Criteria	enterococci	Total N	NO3+NO2	Total P	TURB	chl-a	NH4	Other Pollutants	Category	TMDL Priority
B	Kahului Harbor- inshore of breakwater	HIW00053	dry	?	V	V	V	N	?	?	Turb (Y)	3,5	L
C	Kaihalulu Bay	HI432263	dry	?	?	?	?	?	?	?		3	
C	Ka'ilili Beach	HI641844	dry	?	?	?	?	?	?	?		3	
C	Kalama Beach Co. Park (Beach)	HIW00023	dry	A	N	N	<b>N</b>	N	N	N		2,5	L
C	Kalama Beach Co. Park (Cove Park)	HI705118	dry	A	<b>N</b>	<b>N</b>	<b>N</b>	?	<b>N</b>	<b>N</b>		<b>2,3,5</b>	<b>L</b>
C	Kalama Beach station*	HIW00168	dry	?	N	N	?	N	N	N		3,5	L
C	Kalepolepo (Waimahaihai)	HIW00141	dry	A	N	N	N	N	N	N		2,5	L
C	Kalepolepo Beach	HI647373	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Kamaole Beach 1	HI761092	dry	A	<b>A</b>	<b>N</b>	<b>N</b>	N	N	<b>N</b>		2,5	L
C	Kamaole Beach 2	HI097179	dry	A	?	?	?	N	N	?		2,3,5	L
C	Kamaole Beach 3	HI496115	dry	A	?	?	?	N	N	?		2,3,5	L
C	Kanaha Beach	HI797225	dry	A	?	?	N	N	N	?		2,3,5	L
C	Kanaha Beach (Kaa Shoreline)	HIW00020	dry	<b>A</b>	?	?	N	N	N	?		<b>2,3,5</b>	L
C	Kanaio Beach	HI404881	dry	?	?	?	?	?	?	?		3	
C	Kapalua (Fleming's) Beach	HI391006	dry	A	N	N	A	N	N	N		2,5	M
C	Kapoli Beach Co. Park	HI599968	dry	?	?	?	?	?	?	?		3	
C	Kea'a Beach	HI593477	dry	?	?	?	?	?	?	?		3	
C	Ke'anae	HI959746	wet	?	?	?	?	?	?	?		3	
C	Keawakapu Beach	HI607763	dry	A	?	?	?	N	N	?		2,3,5	L
C	Keonenui Beach	HI199865	dry	?	?	?	?	?	?	?		3	
C	Kihei Coast- nearshore waters to 60' from Kihei North - Kalama Beach	HIW00056	dry	?	Y	Y	Y	N	?	?	nutrients, TSS (Y)	3,5	L
C	Kihei Coast-Cove Park*	HIW00167	<b>dry</b>	?	N	N	?	N	N	?		3,5	L
C	Kihei Coast-Estuary Boat Ramp	HIW00166	<b>dry</b>	?	N	N	?	N	?	?		3,5	L
C	Kihei Coast-Kalepolepo	HIW00039	<b>dry</b>	?	N	N	?	N	N	?		3,5	L
E	Kihei Coast-Kaonoulu Estuary	HIW00040	<b>na</b>	?	N	N	?	N	N	?		3,5	L

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MAUI Marine Waters													
Waterbody Type	Scope of Assessment	Geocode ID	Wet/Dry Criteria	enterococci	Total N	NO3+NO2	Total P	TURB	chl-a	NH4	Other Pollutants	Category	TMDL Priority
E	Kihei Coast-Kealia Pond	HIW00070	na	?	?	?	?	?	N	?		3,5	H
C	Kihei Coast-Keawakapu*	HIW00074	dry	?	?	N	?	?	N	?		3,5	L
C	Kihei Coast-Kulanihakoi	HIW00043	dry	?	N	N	?	N	N	N		3,5	L
C	Kihei Coast-Lipoa-South	HIW00072	dry	?	?	?	?	N	N	?		3,5	L
C	Kihei Coast-Luana Kai	HIW00041	dry	?	N	N	?	N	N	N		3,5	L
C	Kihei Coast-Maui Coast	HIW00073	dry	?	?	N	?	N	N	?		3,5	L
C	Kihei Coast-Mokulele	HIW00042	dry	?	N	N	?	N	N	?		3,5	L
C	Kihei Coast-South Kam II	HIW00071	dry	?	?	N	?	?	N	?		3,5	L
C	Koki Beach Park (VFW)	HI650469	dry	?	?	?	?	?	?	?		3	
C	Ku'au Bay	HI276573	dry	A	?	?	?	?	?	?		2,3	
C	Kuiaha Bay	HI852861	dry	?	?	?	?	?	?	?		3	
C	La Perouse Bay	HI674004	dry	?	?	?	?	?	?	?		3	
<b>C</b>	<b>Lahaina Beach</b>	<b>HI407363</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
<b>B</b>	Lahaina Harbor	HIW00137	dry	?	?	?	?	N	?	?		3,5	M
C	Launiupoko St. Wayside Park	HI558359	dry	A	?	?	?	N	?	?		2,3,5	M
C	Leho'ula Beach	HI884223	dry	?	?	?	?	?	?	?		3	
C	Lower Pa'ia (Pa'ia Outfall station)	HI864937	dry	A	?	?	?	N	?	?		2,3,5	L
C	Ma'alaea Beach	HI058731	dry	A	?	?	?	N	N	?		2,3,5	L
<b>B</b>	Ma'alaea Boat Harbor station*	HIW00082	dry	?	N	N	?	N	N	?		3,5	L
B	Ma'alaea Small Boat Harbor	HIW00140	dry	?	?	?	?	N	N	?		3,5	L
C	Mai Poina Oe Iau Beach Co. Pk.	HIW00025	dry	A	?	?	?	N	?	?		2,3,5	L
C	Mai Poina Oe Iau Beach Co. Pk. (Kihei N. station)	HI715975	dry	A	?	?	N	N	N	?		2,3,5	L
C	Maka'alae Pt.	HI978171	dry	?	?	?	?	?	?	?		3	
C	Makena Landing Beach	HI245556	dry	A	?	?	?	?	?	?		2,3	
C	Makena Landing-Maluaka Beach	HIW00142	dry	?	N	N	A	A	N	N		2,3,5	L
C	Mala Wharf	HIW00171	dry	N	?	?	N	N	N	?		3,5	M

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C	Mala Wharf area	HIW00138	dry	?	N	N	A	N	N	N		2,3,5	L
C	Mala Wharf-West Maui Coast	HIW00123	dry	?	?	?	?	N	N	?		3,5	M
C	Maliko Bay	HI423064	dry	<b>N</b>	?	?	?	?	?	?		<b>3,5</b>	<b>L</b>
C	Malu'aka Beach	HI847607	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Mantokuji Bay	HI482300	dry	?	?	?	?	?	?	?		3	
C	McGregor Pt.	HI227321	dry	?	?	?	?	?	?	?		3	
C	Mokapu Beach Park	HI861961	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Mokulau	HI519980	wet	?	?	?	?	?	?	?		3	
C	Mokule'ia Beach	HI977299	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Nahiku	HI983172	wet	?	?	?	?	?	?	?		3	
C	Napili Bay	HI764060	dry	<b>A</b>	<b>A</b>	<b>N</b>	<b>N</b>	?	<b>N</b>	<b>N</b>		<b>2,3,5</b>	<b>L</b>
C	Nu'u Bay	HI176594	dry	?	?	?	?	?	?	?		3	
C	Olowalu (Shorefront)	HIW00021	dry	<b>A</b>	?	?	?	N	N	?		<b>2,3,5</b>	L
C	Olowalu (Teen Challenge)	HI491359	dry	A	?	?	?	N	?	?		2,3,5	L
<b>C</b>	<b>Oneloa Bay Beach</b>	<b>HI740710</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	Oneloa Beach (Big Beach) (Makena Bch Station)	HI279887	dry	<b>A</b>	?	?	?	N	N	?		<b>2,3,5</b>	L
C	Oneloa Beach (Big Beach)-Ahihi-Kinau	HIW00144	dry	?	N	N	A	A	N	N		2,3,5	L
C	Oneuli Beach	HI756040	dry	<b>A</b>	N	N	A	A	N	N		2,5	L
C	Palaua Beach Park	HI997014	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Papalaua	<b>HI462219</b>	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Pepeiaolepo Bay	HI136430	wet	?	?	?	?	?	?	?		3	
C	Polo Beach Park	HI339656	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Po'olenalena Beach	HI684864	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Poolenalena-Makena Landing	HIW00143	dry	?	N	N	A	A	N	N		2,3,5	L
C	Puamana Beach Co. Park	HI167153	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Punalau	HI641109	dry	?	?	?	?	?	?	?		3	



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C	Pu'u ola'i (Small Beach)	HI157533	dry	A	?	?	?	?	?	?		2,3	
C	Pu'unoa Beach	HI373055	dry	A	?	?	?	N	?	?		2,3,5	M
C	Spreckelsville	HI789952	dry	A	?	?	?	N	?	?		2,3,5	L
C	Ukumehame Beach Co. Pk.	HI814309	dry	A	?	?	?	?	?	?		2,3	
C	Ulua Beach Park	HI588333	dry	A	?	?	?	N	N	?		2,3,5	L
C	Wahikuli State Wayside Park	HI169380	dry	A	?	?	?	N	N	?		2,3,5	M
C	Wai'anapanapa State Park	HI118874	dry	?	?	?	?	?	?	?		3	
C	Waiehu Beach Co. Park	HI916183	wet	A	?	?	?	?	?	?		2,3	
C	Waihe'e	HI343702	wet	A	?	?	?	?	?	?		2,3	
C	Waikoloa Beach	HI796679	dry	?	?	?	?	?	?	?		3	
C	Wailea Beach Park	HI278988	dry	A	?	?	?	N	?	?		2,3,5	L
C	Waimaha'ihai Beach	HI236756	dry	?	?	?	?	?	?	?		3	
<b>C</b>	<b>Waipulani</b>	<b>HI284036</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	West Maui Coast-Hanakeana Cove	HIW00044	dry	?	N	N	?	N	N	?		3,5	M
C	West Maui Coast-Kahana Cove	HIW00045	dry	?	N	N	?	N	N	?		3,5	M
C	West Maui Coast-Kahana Sunset	HIW00075	dry	?	?	N	?	N	N	?		3,5	M
C	West Maui Coast-Kahana Village	HIW00076	dry	?	?	?	?	N	N	?		3,5	M
C	West Maui Coast-Kaopala Bay	HIW00046	dry	?	N	N	?	N	N	N		3,5	M
C	West Maui Coast-Lokelani	HIW00077	dry	?	?	N	?	N	N	?		3,5	M
C	West Maui Coast-Napili Bay	HIW00078	dry	?	?	N	?	N	N	?		3,5	M
C	West Maui Coast-nearshore waters to 60' from Honolulu - Lahaina	HIW00060		?	Y	Y	Y	N	?	?	nutrients, TSS (Y)	3,5	M
C	West Maui Coast-S-Turns (Pohaku)	HIW00047		?	N	N	?	N	N	?		3,5	M
<b>C</b>	<b>West Maui-Honokowai Watershed</b>	<b>HIW00208</b>	<b>dry</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3</b>	
<b>C</b>	<b>West Maui-Kahana Watershed</b>	<b>HIW00207</b>	<b>dry</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3</b>	
C	West Maui-Papakea	HIW00079	dry	?	?	?	?	N	N	?		3,5	M

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C	West Maui-Puamana	HIW00080	<i><b>dry</b></i>	?	?	?	?	N	N	?		3,5	M
<b>C</b>	<b><i>West Maui-Wahikuli Watershed</i></b>	<b><i>HIW00209</i></b>	<b><i>dry</i></b>	<b><i>?</i></b>	<b><i>?</i></b>	<b><i>?</i></b>	<b><i>?</i></b>	<b><i>?</i></b>	<b><i>?</i></b>	<b><i>?</i></b>		<b>3</b>	

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HAWAII (BIG ISLAND) Stream Waters													
Assessed Waterbody	Waterbody Type	Scope of Assessment	Geocode ID	Season	enterococci	Total N	NO3+NO2	Total P	TURB	TSS	Other Pollutants	Category	TMDL Priority
Aamakao	Stream	EN	8-1-12	Dry	?	A	A	A	N	A		2,3,5	L
Aamakao	Stream	EN	8-1-12	Wet	?	A	A	A	A	A		2,3	
Alenaio	Stream	EN	8-2-61.01.1		?	V	V	V	?	?		3,5	H (IP)
Hakalau	Stream	EN	8-2-32		?	V	V	V	V	?		3,5	M
Halawa	Stream	EN	8-1-11		?	?	?	?	?	?		3	
Halelua	Stream	EN	8-1-10	Wet	?	?	?	?	N1c	?		3,5	L
Hanaula	Stream	EN	8-1-06		?	?	?	?	?	?		3	
Hapahapai	Stream	EN	8-1-07		?	?	?	?	?	?		3	
Honolii	Stream	EN	8-2-56	Dry	?	A	A	A	N	A		2,3,5	L
Honolii	Stream	EN	8-2-56	Wet	?	A	A	A	A	A		2,3	
Kaieie	Stream	EN	8-2-49	Dry	?	A	A	A	?	A		2,3	
Kaieie	Stream	EN	8-2-49	Wet	?	V	V	V	?	?		3,5	L
Kalaoa	Stream	EN	8-2-47	Both	?	Ac	Ac	Ac	Ac	Ac		2,3	
Kalaoa	Stream	EN	8-2-47	Dry	?	Ac	Ac	Ac	A	Ac		2,3	
Kapehu	Stream	EN	8-2-37	Dry	?	Ac	N	A	N	A		2,3,5	L
Kapehu	Stream	EN	8-2-37	Wet	?	A	A	A	A	A		2,3	
Kapue	Stream	EN	8-2-53	Dry	?	Ac	Ac	Ac	N	Ac		2,3,5	L
Kapue	Stream	EN	8-2-53	Wet	?	Ac	Ac	Ac	?	Ac		2,3	
Kapulena	Stream	EN	8-1-52		?	?	?	?	?	?		3	
Kawaikalia	Stream	EN	8-1-53		?	?	?	?	?	?		3	
Kolekole	Stream	EN	8-2-33	Dry	?	A	A	A	A	A		2,3	
Kolekole	Stream	EN	8-2-33	Wet	?	A	A	A	A	A		2,3	
Kumakua	Stream	EN	8-1-03		?	?	?	?	?	?		3	
Lalakea	Stream	EN	8-1-45	Dry	?	Ac	Ac	Ac	N	Ac		2,3,5	L
Lalakea	Stream	EN	8-1-45	Wet	?	Ac	Ac	Ac	A	Ac		2,3	

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Maili	Stream	EN	8-2-57	Dry	?	Ac	Ac	Ac	N	Ac		2,3,5	L
Maili	Stream	EN	8-2-57	Wet	?	Ac	Ac	Ac	Ac	Ac		2,3	
Nanue	Stream	EN	8-2-27		?	?	?	?	?	?		3	
Nienie	Stream	EN	8-1-61		?	?	?	?	?	?		3	
Niulii	Stream	EN	8-1-13	Dry	?	A	A	A	N	A		2,3,5	L
Niulii	Stream	EN	8-1-13	Wet	?	A	A	A	A	A		2,3	
Paheehee	Stream	EN	8-2-34	Dry	?	Ac	Ac	Ac	A	Ac		2,3	
Paheehee	Stream	EN	8-2-34	Wet	?	Ac	Ac	Ac	Ac	Ac		2,3	
Pali Akamoa	Stream	EN	8-1-08		?	?	?	?	?	?		3	
Pololu	Stream	EN	8-1-15	Dry	?	?	?	?	?	?		3	
Pololu	Stream	EN	8-1-15	Wet	?	?	?	?	Ac	?		2,3	
Pukihae	Stream	EN	8-2-59	Dry	?	Ac	Ac	Ac	A	Ac		2,3	
Pukihae	Stream	EN	8-2-59	Wet	?	Ac	Ac	Ac	Ac	Ac		2,3	
Waiakea	Stream	EN	8-2-61		?	V	V	V	?	?		3,5	H (IP)
Waialeale	Stream	EN	8-1-50		?	?	?	?	?	?		3	
Waikama	Stream	EN	8-1-14	Dry	?	A	A	A	N	A		2,3,5	L
Waikama	Stream	EN	8-1-14	Wet	?	A	A	A	A	A		2,3	
Waikoloa	Stream	EN	8-1-51		?	?	?	?	?	?		3	
Wailoa	Estuary	EE	8-2-61-E		?	V	V	V	V	?		3,5	M
Wailoa/Waipio	Stream	EN	8-1-44	Dry	?	N	N	N	A	A		2,3,5	L
Wailoa/Waipio	Stream	EN	8-1-44	Wet	?	Nc	N1	Ac	A	Ac		2,3,5	L
Wailuku	Stream	EN	8-2-60	Dry	?	A	N	A	A	A		2,3,5	L
Wailuku	Stream	EN	8-2-60	Wet	?	A	A	A	A	A		2,3	
Wainaia	Stream	EN	8-1-09	Dry	?	Ac	Ac	Ac	?	Ac		2,3	
Wainaia	Stream	EN	8-1-09	Wet	?	Ac	Ac	Ac	N	Ac		2,3,5	L

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Waipunahoe	Stream	EN	8-1-49		?	?	?	?	?	?		3	
Waipunalau	Stream	EN	8-1-77		?	?	?	?	?	?		3	
Waiulili	Stream	EN	8-1-47	Dry	?	?	?	?	?	?		3	
Waiulili	Stream	EN	8-1-47	Wet	?	?	?	?	Ac	?		2,3	

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K	2nd Beach (next to Mahaiula)	HI616452	na	<b>A</b>	?	?	?	?	?	?		2,3	
K	Anaeho'omalu Bay	HI326172	na	A	?	?	?	?	?	?		2,3	
C	Analani Pond (Puala'a)	HI707059	dry	A	?	?	?	?	?	?		2,3	
K	Banyan's Surfing Area	HI713314	na	<b>N</b>	?	?	?	?	?	?		3,5	<b>L</b>
C	Hakalau Co. Pk.	HI138086	wet	<b>A</b>	?	?	?	?	?	?		2,3	
C	Halape Shelter	HI645539	dry	?	?	?	?	?	?	?		3	
K	Hapuna Beach St. Rec. Area	HI621002	na	A	N	N	N	N	N	N		2,5	L
B	Hilo Bay (Boat Landing)	HIW00027	wet	<b>A</b>	?	?	?	?	N	?		2,3,5	L
B	Hilo Bay (Canoe Beach)	HI315019	wet	<b>A</b>	<b>N</b>	<b>N</b>	<b>N</b>	N	<b>A</b>	<b>N</b>		2,5	L
B	Hilo Bay (Coconut Isle)	HI977673	wet	A	?	?	?	?	?	?		2,3	
B	Hilo Bay (Exit of Ice Pond)	HI659453	wet	A	N	N	N	?	A	A		2,3,5	L
B	Hilo Bay (Lighthouse)	HIW00028	wet	<b>A</b>	A	N	A	N	<b>A</b>	N		2,5	L
B	Hilo Bay (Offshore)	HIW00031	wet	?	?	N	?	N	N	N		3,5	L
B	Hilo Bay- inshore of breakwater and nearshore waters from Wainaku to Paukaa	HIW00098	wet	?	V	V	V	N	?	?	nutrients	3,5	L
<b>K</b>	<b>Holoholokai</b>	<b>HI852331</b>	<b>na</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
K	Honaunau Bay	HIW00176	na	?	?	?	?	?	?	?		3	
<b>K</b>	<b>Honaunau Bay (2 Step)</b>	<b>HI246645</b>	<b>na</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
K	Honokohau Beach	HI315174	na	?	N	N	N	N	A	N	PO4(N)	2,3,5	L
B	Honokohau Boat Harbor	HIW00099	<b>dry</b>	?	?	?	?	?	?	?		3	
C	Honoli'i Beach Co. Park	HI857411	wet	<b>A</b>	?	?	?	N	?	?		2,3,5	L
<b>C</b>	<b>Ho'okena</b>	<b>HI152572</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
E	James Kealoha Park	HI670254	<b>na</b>	A	?	?	?	?	?	?		2,3	
C	Ka Lae (South Point)	HI107517	dry	?	?	?	?	?	?	?		3	
K	Kahalu'u Beach Co. Pk.	HI013290	na	A	?	?	?	?	?	?		2,3	
K	Kahoiawa Bay	HIW00150	na	?	N	A	A	N	A	A		2,3,5	L

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K	Kahoiawa Bay-Makalawena	HIW00151	na	?	N	A	A	N	A	A		2,3,5	L
K	Kahuwai Bay	HI990843	na	?	?	?	?	?	?	?		3	
K	Kahuwai Bay-Mano Pt.	HIW00153	na	?	N	A	A	N	A	A	PO4(A)	2,3,5	L
<b>K</b>	<b>Kailua Bay</b>	<b>HI753566</b>	<b>na</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
K	Kakapa Bay	HIW00152	na	?	N	A	A	N	A	A		2,3,5	L
C	Kalapana Beach (new) (Harry K. Brown Beach Co. Park)	HI542822	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
K	Kaluhika'a Beach	HI327989	na	?	?	?	?	?	?	?		3	
K	Kamakaokahonu	HIW00032	na	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
K	Kamakaokahonu (Kailua Pier A-1)	HI261474	na	A	?	?	N	?	?	?		2,3,5	L
K	Kamoa Pt.	HI602472	na	?	?	?	?	?	?	?		3	
C	Kapoho Bay	HI391407	dry	<b>N</b>	?	?	?	?	?	?		<b>3,5</b>	<b>L</b>
<b>C</b>	<b>Kapoho Beach Lots</b>	<b>HIW00196</b>	<b>dry</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	Kapoho Tidepools (Vacationland)	HI122881	dry	A	?	?	?	N	?	?		2,3,5	L
<b>C</b>	<b>Kapu'a Bay</b>	<b>HIW00067</b>	<b>dry</b>	?	?	?	?	?	?	?		3	
<b>C</b>	<b>Kauilii Pt.-Kapaa Beach Park</b>	<b>HIW00201</b>	<b>dry</b>	<b>?</b>	<b>N</b>	<b>N</b>	<b>A</b>	<b>A</b>	<b>N</b>	<b>N</b>		<b>2,3,5</b>	<b>L</b>
<b>O</b>	<b>Kauilii Pt.-Kapaa Beach Park (oceanic)</b>	<b>HIW00202</b>	<b>na</b>	<b>?</b>	<b>N</b>	<b>A</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>A</b>		<b>2,3,5</b>	<b>L</b>
K	Kauna'oa Beach	HI261869	na	A	?	?	?	?	?	?		2,3	
K	Ka'upulehu	HI770607	na	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Kawa Bay	HI535602	dry	?	?	?	?	?	?	?		3	
<b>B</b>	<b>Kawaihae Harbor</b>	<b>HI978783</b>	<b>dry</b>	A	?	?	?	?	?	?		2,3	
<b>B</b>	<b>Kawaihae Harbor/Pelekane Bay</b>	<b>HIW00155</b>	<b>dry</b>	?	?	?	?	N	?	?		3,5	L
<b>K</b>	<b>Keahole Point</b>	<b>HIW00203</b>	<b>na</b>	<b>?</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>N</b>	<b>A</b>	<b>N</b>	<b>PO4(A)</b>	<b>2,3,5</b>	<b>L</b>
K	Kealakekua Bay	HIW00149	na	?	N	N	N	N	A	A	PO4(N)	2,3,5	L
K	Kealakekua Bay (Off Curio Stand)	HIW00183	na	<b>A</b>	?	?	?	N	?	?		<b>2,3,5</b>	L
<b>C</b>	<b>Kealia Beach</b>	<b>HI514168</b>	<b>dry</b>	?	?	?	?	?	?	?		3	

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HAWAII (BIG ISLAND) Marine Waters													
Waterbody Type	Scope of Assessment	Geocode ID	Wet/Dry Criteria	enterococci	Total N	NO3+NO2	Total P	TURB	chl-a	NH4	Other Pollutants	Category	TMDL Priority
K	Keauhou Bay (Kona)	HI713293	na	A	?	?	?	?	?	?		2,3	
E	Keaukaha Beach Park	HI849313	na	A	?	?	?	?	?	?		2,3	
K	Keawaiki	HI929053	na	?	?	?	?	?	?	?		3	
K	Ke'ei	HI858729	na	?	?	?	?	?	?	?		3	
C	Kehena	HI459942	dry	A	?	?	?	?	?	?		2,3	
C	Keokea Beach C. Pk.	HI784200	dry	?	?	?	?	?	?	?		3	
<b>K</b>	<b>Keone'ele Cove</b>	<b>HI559410</b>	<b>na</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	Kolekole Beach Co. Park	HI693485	wet	A	?	?	?	N	?	?		2,3,5	L
K	Kuki'o Bay	HIW00154	na	?	N	N	N	N	A	N	PO4(N)	2,3,5	L
<b>C</b>	<b>Kulaimano</b>	<b>HIW00204</b>	<b>wet</b>	<b>?</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>		<b>2,3</b>	
C	Lapakahi St. Hist. Park	HI490010	dry	?	?	?	?	?	?	?		3	
C	Laupahoehoe Beach Co. Park	HI380623	wet	A	?	?	?	?	?	?		2,3	
E	Lehia Beach	HI691720	na	A	?	?	?	?	?	?		2,3	
E	Leleiwi Beach Co. Pk.	HI540868	na	A	?	?	N	?	?	?		2,3,5	L
E	Leleiwi Beach Co. Pk. (Richardson Ocean Ctr.)	HIW00030	na	A	?	?	?	N	N	?		2,3,5	L
K	Mahai'ula Bay	HI694255	na	?	?	?	?	?	?	?		3	
C	Mahukona Beach Co. Park	HI273526	dry	?	?	?	?	?	?	?		3	
<b>C</b>	<b>Mahukona Harbor</b>	<b>HIW00197</b>	<b>dry</b>	<b>?</b>	<b>N</b>	<b>N</b>	<b>A</b>	<b>N</b>	<b>N</b>	<b>N</b>		<b>2,3,5</b>	<b>L</b>
<b>O</b>	<b>Mahukona Harbor (oceanic)</b>	<b>HIW00198</b>	<b>na</b>	<b>?</b>	<b>N</b>	<b>A</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>A</b>		<b>2,3,5</b>	<b>L</b>
K	Makalawena	HI901744	na	?	?	?	?	?	?	?		3	
<b>C</b>	<b>Makaohule Pt.-Kauilii Pt.</b>	<b>HIW00199</b>	<b>dry</b>	<b>?</b>	<b>N</b>	<b>N</b>	<b>A</b>	<b>A</b>	<b>N</b>	<b>N</b>		<b>2,3,5</b>	<b>L</b>
<b>O</b>	<b>Makaohule Pt.-Kauilii Pt. (oceanic)</b>	<b>HIW00200</b>	<b>na</b>	<b>?</b>	<b>N</b>	<b>A</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>A</b>		<b>2,3,5</b>	<b>L</b>
K	Makole'a Beach	HI223059	na	?	?	?	?	?	?	?		3	
<b>K</b>	<b>Manini Point Co. Park</b>	<b>HI379764</b>	<b>na</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3</b>	
K	Manini'owali	HI720408	na	A	N	A	A	N	A	A	PO4(A)	2,5	L
<b>K</b>	<b>Mauna Lani (Kalahuipua'a)</b>	<b>HI890924</b>	<b>na</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	



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HAWAII (BIG ISLAND) Marine Waters													
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K	Mau'umae Beach	HI120357	na	?	?	?	?	?	?	?		3	
<b>C</b>	Miloli'i Beach	HI470112	<b>dry</b>	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Ninole	HI124561	dry	?	?	?	?	?	?	?		3	
K	Ohai'ula Beach	HI143737	na	?	?	?	?	?	?	?		3	
K	Old Kona Airport St. Rec. Area	HI256093	na	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
C	Onekahakaha Beach Co. Pk.	HI862286	wet	A	?	?	?	?	?	?		2,3	
C	Onekahakaha Beach Co. Pk. (Puhi Bay #3)	HIW00029	wet	<b>A</b>	?	?	?	N	N	?		<b>2,3,5</b>	L
K	Paoao Point to Keawekaheka Point	HIW00145	na	?	N	A	A	A	A	A	PO4(A)	2,3,5	L
K	Pahoehoe Beach Co. Pk.	HI935352	na	?	?	?	?	?	?	?		3	
C	Papa'i (King's Landing)	HI112071	dry	?	?	?	?	?	?	?		3	
<b>K</b>	<b>Pelekane Bay</b>	<b>HI738158</b>	<b>na</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>?</b>	<b>N</b>	<b>N</b>		<b>3,5</b>	<b>L</b>
K	Pine Trees	HI320616	na	<b>A</b>	N	A	A	A	A	A	PO4(A)	2,5	L
K	Pine Trees-Honokohau	HIW00146	na	?	N	N	N	N	A	N	PO4(N)	2,3,5	L
C	Pohoiki Beach	HI316864	dry	A	?	?	?	?	?	?		2,3	
<b>C</b>	<b>Pololu Valley</b>	<b>HI183806</b>	<b>dry</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>3</b>	
K	Puako	HI668132	na	A	?	?	?	?	?	?		2,3	
K	Puako Bay	HIW00033	na	A	?	?	?	?	?	?		2,3	
K	Pueo Bay	HI930479	na	?	?	?	?	?	?	?		3	
<b>C</b>	<b>Puhi Bay</b>	<b>HIW00206</b>	<b>wet</b>	<b>?</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>		<b>2,3</b>	
C	Punalu'u	HI224651	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
K	Pu'u honua o Honaunau	HI478461	na	?	?	?	?	?	?	?		3	
<b>E</b>	<b>Radio Bay</b>	<b>HI425303</b>	<b>na</b>	<b>A</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>	<b>?</b>		<b>2,3</b>	
C	Road to the Sea	HI849236	dry	?	?	?	?	?	?	?		3	
K	Spencer Beach Co. Pk.	HI936372	na	A	?	?	?	N	N	?		2,3,5	L
K	Waialea Bay	HI381812	na	?	?	?	?	?	?	?		3	
E	Wailoa River (Boat Ramp)	HIW00172	<b>na</b>	N	<b>N</b>	<b>N</b>	<b>N</b>	?	?	<b>N</b>		3,5	M

## 2012 State of Hawaii Water Quality Monitoring and Assessment Report

HAWAII (BIG ISLAND) Marine Waters													
Waterbody Type	Scope of Assessment	Geocode ID	Wet/Dry Criteria	enterococci	Total N	NO3+NO2	Total P	TURB	chl-a	NH4	Other Pollutants	Category	TMDL Priority
<b>C</b>	<b>Waipahi Point</b>	<b>HIW00205</b>	<b>wet</b>	<b>?</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>		<b>2,3</b>	
C	Waipi'o Bay	HI534434	wet	?	?	?	?	?	?	?		3	
<b>K</b>	<b>Waiulaula</b>	<b>HI934020</b>	<b>na</b>	<b>A</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>?</b>	<b>N</b>	<b>N</b>		<b>2,3,5</b>	<b>L</b>
K	Waiulua Bay to Anaehoomalu Bay	HIW00148	na	?	N	N	N	N	N	N	PO4(N)	3,5	L
K	Wawaloli Beach	HI643938	na	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	
K	Wawaloli Beach-Pine Trees	HIW00147	na	?	N	A	A	N	A	A	PO4(N)	2,3,5	L
K	White Sands Beach Co. Pk. (Magic Sands)	HI436267	na	A	?	?	?	N	N	?		2,3,5	L
C	Whittington Beach Co. Pk.	HI720900	dry	<b>A</b>	?	?	?	?	?	?		<b>2,3</b>	

APPENDIX A: Data Intake Log

<b>Date Received</b>	<b>Submitter</b>	<b>Organization</b>	<b>Waterbody Area</b>	<b>Description of Data</b>
09/02/2010	Waikoloa Development Company	Waikoloa Development Company	Waikoloa, Hawaii	hard copy report; nutrients 2010
01/3/2011	Richard Brock	Environmental Assessment Co.	Hokulia, Hawaii	excel doc; nutrients 2006 - 3/2010
01/3/2011	Richard Brock	Environmental Assessment Co.	Kukio, Hawaii	excel doc; nutrients 2006 - 11/2009
01/3/2011	Richard Brock	Environmental Assessment Co.	Maniniowali, Hawaii	excel doc; nutrients 2006 - 11/2009
01/3/2011	Richard Brock	Environmental Assessment Co.	Kapulehu, Hawaii	excel doc; nutrients 2006 - 11/2009
01/3/2011	Richard Brock	Environmental Assessment Co.	Kohanaiki, Hawaii	excel doc; nutrients 2006 - 8/2010
01/3/2011	Richard Brock	Environmental Assessment Co.	Waikoloa, Hawaii	excel doc; nutrients 2006 - 10/2009
01/3/2011	Richard Brock	Environmental Assessment Co.	Mahukona, Hawaii	excel doc; nutrients 2008 - 6/2010
01/3/2011	Richard Brock	Environmental Assessment Co.	Manele, Lanai	excel doc; nutrients 2006 - 5/2010
01/10/2011	via Dale Mikami	City and County of Honolulu	Ewa, Oahu	excel doc; bacteria for 2010
01/10/2011	via Dale Mikami	City and County of Honolulu	Kailua, Oahu	excel doc; bacteria for 2010
01/10/2011	via Dale Mikami	City and County of Honolulu	Sand Island, Oahu	excel doc; bacteria for 2010
01/10/2011	via Dale Mikami	City and County of Honolulu	Waianae, Oahu	excel doc; bacteria for 2010
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Ewa, Oahu	excel doc; bacteria for 2007
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Kailua, Oahu	excel doc; bacteria for 2007

APPENDIX A: Data Intake Log

<b>Date Received</b>	<b>Submitter</b>	<b>Organization</b>	<b>Waterbody Area</b>	<b>Description of Data</b>
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Sand Island, Oahu	excel doc; bacteria for 2007
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Waianae, Oahu	excel doc; bacteria for 2007
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Ewa, Oahu	excel doc; bacteria for 2008
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Kailua, Oahu	excel doc; bacteria for 2008
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Sand Island, Oahu	excel doc; bacteria for 2008
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Waianae, Oahu	excel doc; bacteria for 2008
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Ewa, Oahu	excel doc; bacteria for 2009
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Kailua, Oahu	excel doc; bacteria for 2009
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Sand Island, Oahu	excel doc; bacteria for 2009
01/13/2011	via Sara Roser (EPA)	City and County of Honolulu	Waianae, Oahu	excel doc; bacteria for 2009
01/18/2011	Steve Dollar	Marine Research Consultants	Makena, Maui	excel doc; nutrients 2006 - 7/2011
03/22/2011	Kohala Preserve Conservation Trust	Kohala Preserve Conservation Trust LLC	Mahukona, Hawaii	hard copy report; nutrients 11/2010
03/22/2011	Castle & Cooke Resorts, LLC	Castle & Cooke Resorts, LLC	Manele, Lanai	pdf report on disk; nutrients 11/2010
05/10/2011	Castle & Cooke Resorts, LLC	Castle & Cooke Resorts, LLC	Manele, Lanai	pdf report on disk; nutrients 03/2011
06/22/2011	via Watson Okubo	City and County of Honolulu	Ewa, Oahu	excel doc; nutrients 2010 - 5/2011
06/22/2011	via Watson Okubo	City and County of Honolulu	Kailua, Oahu	excel doc; nutrients 2010 - 5/2011
06/22/2011	via Watson Okubo	City and County of Honolulu	Sand Island, Oahu	excel doc; nutrients 2010 - 5/2011
06/22/2011	via Watson Okubo	City and County of Honolulu	Waianae, Oahu	excel doc; nutrients 2010 - 5/2011
06/23/2011	Kenneth Tenno	City and County of Honolulu	Ewa, Oahu	excel doc; nutrients 2006 - 2009

# APPENDIX A: Data Intake Log

<b>Date Received</b>	<b>Submitter</b>	<b>Organization</b>	<b>Waterbody Area</b>	<b>Description of Data</b>
06/23/2011	Kenneth Tenno	City and County of Honolulu	Kailua, Oahu	excel doc; nutrients 2006 - 2009
06/23/2011	Kenneth Tenno	City and County of Honolulu	Sand Island, Oahu	excel doc; nutrients 2006 - 2009
06/23/2011	Kenneth Tenno	City and County of Honolulu	Waianae, Oahu	excel doc; nutrients 2006 - 2009
08/08/2011	via Watson Okubo	Stanford Carr Development	Makena, Maui	pdf doc; nutrients 3/2011
10/06/2011	via Sara Roser (EPA)	City and County of Honolulu	Ewa, Oahu	excel doc; bacteria for 2006
10/06/2011	via Sara Roser (EPA)	City and County of Honolulu	Kailua, Oahu	excel doc; bacteria for 2006
10/06/2011	via Sara Roser (EPA)	City and County of Honolulu	Sand Island, Oahu	excel doc; bacteria for 2006
10/06/2011	via Sara Roser (EPA)	City and County of Honolulu	Waianae, Oahu	excel doc; bacteria for 2006
10/06/2011	Castle & Cooke Resorts, LLC	Castle & Cooke Resorts, LLC	Manele, Lanai	pdf report on disk; nutrients 06/2011
12/01/2011	Nobuko Conroy	City and County of Honolulu	Ewa, Oahu	excel doc; bacteria 1/2011 - 10/2011
12/01/2011	Nobuko Conroy	City and County of Honolulu	Kailua, Oahu	excel doc; bacteria 1/2011 - 10/2011
12/01/2011	Nobuko Conroy	City and County of Honolulu	Sand Island, Oahu	excel doc; bacteria 1/2011 - 10/2011
12/01/2011	Nobuko Conroy	City and County of Honolulu	Waianae, Oahu	excel doc; bacteria 1/2011 - 10/2011
01/17/2012	via Shane Sumida	County of Hawaii	Hilo, Hawaii	excel doc; nutrients 2006 - 2008
01/17/2012	via Shane Sumida	County of Hawaii	Hilo, Hawaii	excel doc; nutrients 2008 - 2009
01/17/2012	via Shane Sumida	County of Hawaii	Hilo, Hawaii	excel doc; nutrients 2010 - 09/2011
01/23/2012	Kohala Preserve Conservation Trust	Kohala Preserve Conservation Trust LLC	Mahukona, Hawaii	hard copy report; nutrients 04/2011 - 08/2011

APPENDIX B: Public Comments Log

ID	Name	Affiliation	email	Address
01	Christel and John Blumer-Buell		<a href="mailto:blubu@wave.hicv.net">blubu@wave.hicv.net</a>	
02	Amy Hodges	Maui Nui Marine Resource Council	amyhodges1@gmail.com	
03	Sarah E. McLane	Maui Nui Marine Resource Council	<a href="mailto:mclane@makaliigroup.com">mclane@makaliigroup.com</a>	
04	Miyoko Sakashita	Center for Biological Diversity		351 California St., Ste 600 San Francisco, CA 94104
05	David Penn			P.O. Box 62072 Honolulu, HI 96839
06	Shanon Rudolph		<a href="mailto:shanonkona@gmail.com">shanonkona@gmail.com</a>	P.O. 243 Holualoa, HI 96725
07	Irene Bowie	Maui Tomorrow Foundation	<a href="mailto:huladog@earthlink.net">huladog@earthlink.net</a>	Mari Tomorrow Foundation, Inc. 55 N. Church St. Ste. A4, Wailuku, HI 96793
08	Faith Chase		mauifaith@gmail.com	
09	Courtney Bruch	Upcountry Sustainability	usmaui@hotmail.com	
10	Robin Knox			28 Waikalani Place Kihei, HI 96753
11	John Seebart	Maui Nui Marine Resource Council		5095 Napiliha St. ste 109, Lahaina, HI 96761
12	Robert Aldrich	Maui Nui Marine Resource Council		250 Hoohale Pl., Kihei, HI 96753
13	Thomas Royer	Maui Nui Marine Resource Council		100 Hauoli St. Apt #12, Wailuku, HI 96793
14	Audrey Dack			527 Kualau St., Wailuku, HI 96793

APPENDIX B: Public Comments Log

<b>ID</b>	<b>Name</b>	<b>Affiliation</b>	<b>email</b>	<b>Address</b>
15	Cheryl Sterling			2020 Main St. Apt 505, Wailuku, HI 96793
16	Anelle Pearson	Maui Nui Marine Resource Council		64 Ehiku Loop E201, Kihei, HI 96753
17	John E. Gormam	Maui Nui Marine Resource Council		692 Lower Kimo Drive, Kula, HI 96790
18	Matt Gormam	Maui Nui Marine Resource Council		42 Ala Apapa Pl., Makawao, HI 96768
19	Paula McLane	Maui Nui Marine Resource Council		998 S. Kihei Road #106, Kihei, HI 96753
20	Bill McLane	Maui Nui Marine Resource Council		998 S. Kihei Road #106, Kihei, HI 96753
21	Sheri	Maui Nui Marine Resource Council		
22	Marjorie Bonar	Maui Nui Marine Resource Council		
23	Emily Fielding	Maui Nui Marine Resource Council		400 Auli'i Drive, Pukalani, HI 96768
24	Paul B. Hiusel	Maui Nui Marine Resource Council		201 Pico Tract, Haiku, HI 96708

# APPENDIX C: Public Comments and Responses

ID	Name	Affiliation	Summary of Comments
01	Christel and John Blumer-Buell		Would like to establish regular monitoring with community groups at Hamoa and Hana Bay, Maui in general.
02	Amy Hodges	Maui Nui Marine Resource Council	Concerned that Maui has the most impaired waters. Concerned about change in bacterial standard. Would like to know what plans there are to arrest such impairment. Would like to assist in efforts. Would like to share group's water quality improvement ideas for whale sanctuary areas. Also would like DOH and EPA input on coral reef areas. Suggests working with community groups. Wants more monitoring, staff. Concerned over lack of Priority TMDLs in Maui. Concerned that only one portion of Molokai was assessed..
03	Sarah E. McLane	Maui Nui Marine Resource Council	Concerns regarding number of impaired marine waters in Maui. How does DOH/EPA plan to stop these? Requests input on sanctuary and reef projects. Concerned over lack or priority TMDLs on Maui. Feels the timeframe for TMDL is too short. Would like improved monitoring in Maui County.
04	Miyoko Sakashita	Center for Biological Diversity	Would like DOH to address ocean acidification in 305(b)/303(d), and list its coastal waters as impaired for acidification.
05	David Penn		Would like: <ol style="list-style-type: none"> <li>1. Better definition of "Enterococci"</li> <li>2. Combine NO2+NO3 and Total N into a Nitrogen category</li> <li>3. Access to data and methodologies used to make assessments</li> <li>4. Improved reproducibility and public visibility of report</li> <li>5. The State's Continuing Planning Process report available</li> <li>6. Delineation of DU boundaries.</li> <li>7. Classification of DU</li> <li>8. Data received for each cycle</li> <li>9. More detail on ongoing projects</li> <li>10. Timelines and assessment methodologies for '12 and '14.</li> <li>11. Access to monitoring documents, protocols, guidance documents.</li> </ol>
06	Shanon Rudolph		Wants improved overall water monitoring



# APPENDIX C: Public Comments and Responses

ID	Name	Affiliation	Summary of Comments
07	Irene Bowie	Maui Tomorrow Foundation	Need of more monitoring data for Maui beaches. Opposes changing enterococcus standard value. Concern over injection wells influence on coastal waters. N. Maui: More monitoring needed, TMDL priority should be high. S. Maui: More monitoring needed, TMDL should be set to high, development projects should submit data that is useable to DOH staff. W. Maui: Need for monitoring data from development projects prior to inception. Requests DOH assistance to stop discharges near Olowalu. Need for turbidity testing.
08	Faith Chase		Wants improvement on water collection methods.
09	Courtney Bruch	Upcountry Sustainability	Wants more monitoring on Maui, more personnel, more data compatibility, more water and environmental testing in general.
10	Robin Knox		Is concerned that HI's enterococci standard was changed to 35cfu/100ml Would like: <ol style="list-style-type: none"> <li>1. Wants delineation of DU boundaries.</li> <li>2. Classification of DU</li> <li>3. Wants data received for cycle</li> <li>4. More detail on ongoing projects</li> <li>5. Wants timelines and assessment methodologies for '12 and '14.</li> <li>6. Wants access to monitoring documents, protocols, guidance documents.</li> <li>7. Does not agree with attained entero status for coastal waters, especially Maui.</li> <li>8. Wants more monitoring in Kihei.</li> <li>9. Wants DOH to use community group and other data.</li> </ol>
11	John Seebart	Maui Nui Marine Resource Council	Wants more accurate representation of turbidity in Kaopala Bay, and Maui in general.
12	Robert Aldrich	Maui Nui Marine Resource Council	Wants public education on water quality at boat ramps, and the report to be written in simpler easier to understand terms.
13	Thomas Royer	Maui Nui Marine Resource Council	Wants testing of Maalaea Bay for herbicides; concerned over chemical input affecting coral reefs in bay.

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ID	Name	Affiliation	Summary of Comments
14	Audrey Dack		Wants more monitoring, Wants DOH personnel to water sample.
15	Cheryl Sterling		Wants more monitoring. More stream monitoring. Does not feel it was right to lower WQ standards.
16	Anelle Pearson	Maui Nui Marine Resource Council	Wants more monitoring in “?” areas, does not like lowering of WQS for bacteria. Schools should be involved in monitoring.
17	John E. Gormam	Maui Nui Marine Resource Council	Wants more monitoring in “?” areas. Would like NPDES data to be included. Involve community, schools, etc. for monitoring.
18	Matt Gormam	Maui Nui Marine Resource Council	Wants more monitoring performed, and more personnel.
19	Paula McLane	Maui Nui Marine Resource Council	More monitoring needed, especially N. Kihei. Need more personnel. Why does Maui have the most impairment listings?
20	Bill McLane	Maui Nui Marine Resource Council	Wants more monitoring needed. Need more personnel. Use community groups for monitoring. Better website for data.
21	Sheri	Maui Nui Marine Resource Council	Wants more monitoring. Better data website. Need better wording on website and report.
22	Marjorie Bonar	Maui Nui Marine Resource Council	Wants community group monitoring. Better data on website. More personnel. Wants more indicator bacteria
23	Emily Fielding	Maui Nui Marine Resource Council	More monitoring needed. Use community groups for monitoring.
24	Paul B. Hiusel	Maui Nui Marine Resource Council	Would like color maps, 3D to visualize data.

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ID	Name	Summary of Response to Comments
01	Christel and John Blumer-Buell	The CWB is open and welcomes the idea of partnering with Hana community groups to assist in sampling. In the following weeks informative material will be sent to you to further the process of forming such a partnership. There is only one monitoring staff on Maui, and he does his best to address all areas, but he is limited by time constraints.
02	Amy Hodges	
03	Sarah E. McLane	CWB is a member of the Coral Reef Group. Will be glad to partner with your group for betterment of Maui water quality. Due to Reduction in Force in 2009, the CWB Monitoring Section lost 5 positions. Later, the TMDL and 303(d)/305(b) positions were vacated and recent new hires have taken over. CWB is doing its best to make good on all reports. Since 2010, CWB has performed several studies in West Maui, and is continuing sampling for the Lahaina Seeps study. A West Maui water quality presentation will be done and we invite you to attend. A joint EPA funded project with DAR focusing on streams and rivers will begin in 2013, in which Maui streams are included. Time, funds and staffing are the biggest obstacles for better coverage of our State's waters. As the opportunity arises we try to address all areas possible. We would like to discuss how we can work with your group in future endeavors.
04	Miyoko Sakashita	Thank you for your comments and the information regarding acidification. We have been providing Carl Berg and Henrietta Dulaiova with the pH data. Their findings will be made available to you. Although there is not such a section dealing with acidification in the 2012 report, we intend to do so in the 2014 report. We would like to ask you for data that you may have as we are further along in the report process.
05	David Penn	Thank you for your comments and suggestions on the report. We will consider your comments and suggestions as we move along with the 2014 Integrated Report.
06	Shanon Rudolph	Due to a RIF, personnel had been reduced by 50%. Presently in Legislature there is a bill to restore 2 of the lost positions. These 2 positions would be highly beneficial in increasing monitoring in the state.

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ID	Name	Summary of Response to Comments
07	Irene Bowie	<p>Monitoring results for most of the beaches can be found at the Clean Water Branch website. Beginning in 2010 coastal stations in West Maui were selected as priority areas and have been monitored regularly since. Additionally, there are ongoing special projects which have included pharmaceutical, molecular, microbiological and nutrient sampling. The injection wells issue is currently being researched. Hawaii changed the enterococci level to match that of the national level that is used by other states. Studies have shown that 35 cfu/100ml does not put anyone at risk. Partnering with community groups is already occurring in Kauai. Opportunities in Maui will be explored. Specific areas of interest: A Clean Water Branch Monitoring personnel is based on Maui, and regularly monitors the beaches year-round. Efforts are made by that sole employee to sample as many areas as possible. North Shore of Maui is prone to turbidity due to high surf and winds. South shore: TMDL development was severely delayed due to the position becoming vacant. A new coordinator has now been hired. Data submittals from 3<sup>rd</sup> parties cannot be placed on the CWB website due to legal constraints. Data submitted for 303(d)/305(b) must meet minimum QA/QC requirements. West Maui: In the permitting process, CWB is working to create monitoring plans that are meaningful, defensible and agreeable to all parties. We agree that Hana Bay does need more monitoring, however fund, manpower and time issues are limiting factors.</p>
08	Faith Chase	<p>The Department of Health (DOH) has been concentrating its activities in West Maui for the last two years. West Maui Watershed has been selected as a priority watershed by EPA and Department of Health (DOH). In 2010 and 2011, 50 West Maui coastal stations were selected and sampled for nutrients, bacteria, and water quality parameters (salinity, pH, temperature, dissolved oxygen, % saturation, and turbidity) were monitored under protocols of the EPA National Coastal Condition Assessment Program. In late 2011, DOH began monthly monitoring of the shoreline area that has been identified by the University of Hawaii as the receiving waters of the effluent from the Lahaina Waste Water Reclamation Facility. Underwater seeps and adjacent waters are being sampled for nutrients, bacteria, and water quality parameters are measured. In addition, molecular samples are being collected, process by DOH lab, and results analyzed by Dr. Alexandria Boehm of Stanford University. Pharmaceutical and waste water indicator samples have also been taken and sent to USGS lab for analysis under schedule 2080 and 4433 respectively. DOH will continue the monthly monitoring through December 2013. We hope to complete the study and report on our findings in February 2014. We will make a presentation to the Maui Nui Marine Resource Council and make sure that you are invited to hear the presentation. .</p>

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ID	Name	Summary of Response to Comments
09	Courtney Bruch	Due to a RIF, personnel had been reduced by 50%. However the Monitoring Supervisor was not one of them. Presently in Legislature there is a bill to restore 2 of the lost positions. These 2 positions would be highly beneficial in increasing monitoring in the state. No new projects can be performed due to reduced funding, however West Maui was selected as an EPA priority watershed so projects will be continuing in the area. One of the ongoing projects is investigation effluent water from the Lahaina WWTP. Notification can be sent to you when the report is available. Attempts are being pursued to establish monitoring efforts in the Hana area. Radiation monitoring is handled by the Noise and Radiation branch of the DOH. Information regarding chemicals from the companies you mentioned may be found via the Dept. of Agriculture.
10	Robin Knox	HI changed the standard to match the federal value. This change was approved by EPA. Studies have shown that 7cfu/100ml was too low and that enterococci was being questioned as a reliable indicator. DOH uses a secondary indicator, <i>Clostridium perfringens</i> in our recreational waters. DOH is also funding a study on survivability of enterococci in sand, performed by Dr. Tao Yan. West Maui beaches are monitored weekly and additional studies have been added since 2010. Upon completion of the studies you will be invited to a presentation of findings.
11	John Seebart	The Department of Health has been performing sampling of the coastal waters along the Westin timeshare shoreline since 2011. It has been noticed that wind/high surf does increase turbidity in the area. A similar pattern is observed in Kaopala Bay. The “?” for Kaopala on pg 89 of the report are there due to insufficient numbers of samples during the reporting period (enterococcus), and no recent data (Total P)
12	Robert Aldrich	Please contact The Department of Land & Natural Resources and/or Harbors Division of the Department of Transportation as they have jurisdiction over the harbor areas. Improvements will be made to the Executive summary will be in the 2014 report.
13	Thomas Royer	The Department of Health does not currently have a monitoring program for pesticides. Funding monitoring is a persistent issue, and unfortunately more funding is due to be lost as the EPA BEACH grants have not been renewed by Congress.
14	Audrey Dack	There is a Clean Water Branch Monitoring staff based on Maui who regularly monitors the beaches. In addition, there are special projects being performed in West Maui. Monitoring results for beaches can be found at the Clean Water Branch website. Due to a RIF, personnel had been reduced by 50%. Presently in Legislature there is a bill to restore 2 of the lost positions. These 2 positions would be highly beneficial in increasing monitoring in the state.

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ID	Name	Summary of Response to Comments
15	Cheryl Sterling	Improvements will be made to the Executive summary will be in the 2014 report. Due to manpower and assimilation of positions we are unable to reach all areas for sampling. Streams are important and will be addressed in an upcoming EPA Streams and Rivers project. Hawaii changed the enterococci level to match that of the national level that is used by other states. Studies have shown that 35 cfu/100ml does not put anyone at risk.
16	Anelle Pearson	The standards were revised to be consistent with the EPA standards. This change was approved by EPA. Studies have shown that 7cfu/100ml was useless, and that enterococci was being questioned as a reliable indicator. Because of this <i>Clostridium perfringens</i> is used by DOH as a secondary indicator.
17	John E. Gormam	CWB reviews all data that comes in, but it must meet quality standards to create a quality report. A Reduction In Force in 2009 resulted in loss of 5 Monitoring positions. CWB prioritizes efforts and post storm sampling will not be done. CWB is open to partnering with community groups and is presently doing so on Kauai with the local Surfrider group. As time permits we would like to meet with Maui Nui to discuss the possibility of forming similar partnerships.
18	Matt Gormam	The recent RIF reduced staff by 4. We are hopeful that funding will become available for more positions to help increase monitoring efforts.
19	Paula McLane	Bacteria levels from monitoring at the beaches you specified have been acceptable. Monitoring results for beaches can be found at the Clean Water Branch website. Beginning in 2010 coastal stations in West Maui were selected as priority areas and have been monitored regularly since. Additionally, there are ongoing special projects which have included pharmaceutical, molecular, microbiological and nutrient sampling. Hawaii changed the enterococci level to match that of the national level that is used by other states. Studies have shown that 35 cfu/100ml does not put anyone at risk.

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ID	Name	Summary of Response to Comments
20	Bill McLane	The recent RIF reduced staff by 4. We are hopeful that funding will become available for more positions to help increase monitoring efforts. CWB reviews all data that comes in, but it must meet quality standards to create a quality report. A Reduction In Force in 2009 resulted in loss of 5 Monitoring positions. CWB prioritizes efforts and post storm sampling will not be done. CWB is open to partnering with community groups and is presently doing so on Kauai with the local Surfrider group. As time permits we would like to meet with Maui Nui to discuss the possibility of forming similar partnerships. CWB has developed a Brown Water Advisory which advises the public to stay out of waters during times of storm runoff due to possible contamination. Water samples are not taken during this time because it is already known that the water is affected by runoff. Water chemistry results are available to the public at our website (please refer to the full reply). We do not accept data from individuals to place on our website if it does not meet our Data Requirements.
21	Sheri	No contact information given
22	Marjorie Bonar	The recent RIF reduced staff by 4. We are hopeful that funding will become available for more positions to help increase monitoring efforts. CWB reviews all data that comes in, but it must meet quality standards to create a quality report. A Reduction In Force in 2009 resulted in loss of 5 Monitoring positions. CWB prioritizes efforts and post storm sampling will not be done. CWB is open to partnering with community groups and is presently doing so on Kauai with the local Surfrider group. The standards were revised to be consistent with the EPA standards. This change was approved by EPA. Studies have shown that 7cfu/100ml was useless, and that enterococci was being questioned as a reliable indicator. Because of this <i>Clostridium perfringens</i> is used by DOH as a secondary indicator.
23	Emily Fielding	The recent RIF reduced staff by 4. We are hopeful that funding will become available for more positions to help increase monitoring efforts. We do agree that more monitoring does need to be performed. As an example of working with community groups, we currently have a successful partnership with the Kauai Chapter of Surfrider to collect beach water samples in the Hanalei area. This was possible because the group had the proper training, manpower and QA/QC that is required for such a partnership to begin. We would be interested in such a partnership in Maui if the qualifications are met.
24	Paul B. Hiusel	We will take into consideration your suggestion that we use color in the mapping of impacted areas. However, we will need to look at the additional work and cost involved due to cut backs in federal funding.